



FACULTY OF PSYCHOLOGY AND EDUCATION  
PHD PROGRAM IN PSYCHOLOGY

**THE EXTENT OF APPLYING INTERNATIONAL  
STANDARDS ON VOCATIONAL REHABILITATION  
CENTERS AMONG PEOPLE WITH DISABILITIES  
IN THE BASQUE COUNTRY, SPAIN**

Doctoral Dissertation Presented by  
**Mohammad Ali Hussein Al-Rashaida**

Supervised by Professor  
**Juan Francisco López-Paz**

Bilbao, 2018





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People with Disabilities in the Basque Country, Spain

**Abstract**

As international vocational rehabilitation (VR) standards are developed to promote the rights of people with disabilities (PWDs) in training, employment, and integration, instruments are needed to evaluate the effectiveness of VR centers according to international norms and based on the perceptions of PWDs. This study aimed to investigate PWDs and managers' perceptions regarding the extent of application of international standards issued by the Council of Europe (COE) and International Labour Organization (ILO) in VR centers in the Basque country, Spain. This study also described the current situation and examined the opinions of PWDs with regards to the VR services provided for them. Data were collected in two phases; the first phase includes two stages: (1) an open-ended face-to-face interview with the 11 Basque VR associations' managers; and (2) an interview questionnaire was administered to 136 PWDs. The second phase included creating a valid and reliable instrument to measure PWDs' perceptions regarding the extent of application of international standards. The instrument was translated from English to Spanish and the inter-rater reliability of an expert panel survey and interviews with VR managers were used to assess content validity. For the Spanish version of the instrument, internal consistency reliability and factor analysis were examined with 186 PWDs in five VR centers in the Basque country. Results showed that, although PWDs perceive VR and employment services as advanced and beneficial, there is a need to provide additional courses about work skills. Results also revealed four major themes to describe current situation of the VR program in the Basque region: (a) goals of the VR program, (b) vision and mission of VR centers, (c) eligibility conditions for VR services, and (d) VR services provided for PWDs. The instrument appears to

have good validity and reliability but requires further validation. Support is provided for its use in both English and Spanish. In addition, results indicated the degree of application is high in whole research instrument or standards based on perceptions of managers and PWDs. The results also indicated there is a significant difference according to: (a) level of education of PWDs for all domains or standards; (b) status of disability in the degree of applicability of philosophy or aims of VR association (c) level of education of managers for all domains or standards, except for job related services; (d) gender of managers only in the degree of applicability of VR guidance standards; (e) work experience of managers only in job related services and vocational guidance standards; (f) the type of respondents (managers and PWDs) in the all standards. The implications for VR practice and suggestions for future research are provided.

**DECLARATION**

I hereby declare that this dissertation represents my own work that has been done after enrolment for the degree of PhD at the University of Deusto. I certify that this work has not been submitted previously either in whole or in part, to qualify for any other academic purposes. I declare that this thesis embodies the findings of my own work.

## **DEDICATION**

I dedicate this dissertation to my father Ali, my mother Nadia, my wife Noor, my brother Wael, and my daughter Zain. Your love, wisdom, and inspiration made all of this possible.

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In fact, it has been a long hard journey in completing this research project. PhD though is awarded to an individual; nevertheless, it is a joint effort where contributions of many others, in the form of help, appreciation and encouragement are to be duly acknowledged. It is my pleasure to express my sincere appreciation to them. In this regard, many thanks go to my supervisor Professor Juan Francisco López Paz for his endless professional support and guidance not only for sharing his knowledge and expertise with me, but also for her guidance, tireless mentoring and for being a great source of motivation during my PhD journey. I remain deeply indebted to him. I am also deeply indebted to Professor Imanol Amayra Caro, Director of the Research Team of Neuromuscular Diseases and Neurodevelopment, who gave me the opportunity to turn my dream into reality, who shared with me his great experience, and for his endless support in many stages during my PhD journey. His guidance, motivation and advice enabled me to constantly improve my work on all levels and made this dissertation possible.

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## Introduction

People with disabilities (PWDs) are the world's largest minority group (World Health Organization [WHO], 2017), and they constitute of an estimated more than a billion people, or 15 percent of the world's population (International Labour Organization [ILO], 2017), including approximately 80 percent of working age (ILO, 2017). These numbers are increasing due to population growth, ageing, chronic diseases, as well as those injured by road traffic crashes, war, violence, mental impairments, malnutrition and so forth (Kara & Açikel, 2011). Indeed, within regions of conflict, this is particularly true, as the number of PWDs are increasing dramatically over a short period of time (Peat & Jalovcic, 2009).

Not only are there a huge number of PWDs, but they also are often unemployed or underemployed (Wagner, Newman, Cameto, Garza, & Levine, 2005), and if any of them had a job opportunity, then it was to be for a part time job with a low salary (O'Brien, 2004). This view is supported by the European Union (2006), which states, "Compared to non-disabled persons, the employment and activity rates of disabled people are very low" (p, 1).

The aftermath of World War I and II brought a large number of newly disabled persons because of their wounds, which resulted in the need to find trained employees to fill jobs left vacant by mobilized workers (Eide, 2014; ILO, 1990). It has already led to a governments' decision to take effective measures to rehabilitate and retrain of veterans, such as mandatory employment, planning for vocational training, and sheltered employment (Eide, 2014; ILO, 1987; O'reilly, 2007; Wonacott, 2005).

The world has changed significantly towards PWDs; therefore, they have become more integrated into societies (Ramos, 2011), while discrimination against them has decreased, because of the development of legislations and the persistent efforts made by international

agencies to prohibit any form of discrimination against them from all sides of life (Eide, 2014; ILO, 2016; O'reilly, 2007). In addition, for promoting equal opportunity by preventing their economic and social exclusion, to name a few, The International Labor Conference in May 1944 (ILC) adopted a comprehensive recommendation No. 71, dealing with the organization of full employment in the period of transition from war to peace (Eide, 2014).

Vocational rehabilitation measures support young adults with disabilities to obtain vocational training and to enter the labor market (Tophoven, Reims, & Tisch, 2018). VR (VR) programs are designed to assist PWDs to prepare for and engage in gainful employment (Pi, 2006; Morgan, 2013; Maiden, 2014). They help PWDs to integrate into society (Rubin & Roessler, 2008), and conversely contribute to changing the views and attitudes of society toward PWDs (Al-Oweidi, 2015; Fabian, Ethridge, & Beveridge, 2009; Reaume, 2014) by providing appropriate VR services that offer decent work to PWDs.

It is becoming increasingly difficult to ignore the VR of PWDs, as VR is a basic philosophy focusing on PWDs as humans who deserve to live with dignity in their communities (Al-Oweidi, 2015). Additionally, the major goal of VR is to help PWDs regain independence through employment and integration into society (Escorpizo et al., 2010).

This requires different measures, the most important being the availability of specialized programs and centers for the delivery of VR services for PWDs. These need to be explicitly built on a normative grounding that is consistent and internationally agreed upon (ILO, 2015), perhaps through the implementation of international standards for VR programs for PWDs (Finger et al., 2012; Larsson & Gard, 2003).

International standards are legal instruments for the creation of principles and norms drawn up by the International Labour Organization's (ILO) constituents, setting out the basic

principles and rights at work (ILO, 2015). Adoption of these standards is designed to empower PWDs economically and socially through productive employment organized by VR centers (O'reilly, 2007). The standards take two forms: conventions, which are legally binding international treaties that may be ratified by member states, and recommendations, which serve as non-binding guidelines (ILO, 2015).

In the early 20<sup>th</sup> century, the ILO initiated numerous international legislations, recommendations, and conventions on international standards concerning the VR of PWDs. The most important of these are: (a) Convention concerning Vocational Rehabilitation and Employment of Disabled Persons (No.159) (1983); (b) Recommendation concerning Vocational Rehabilitation of the Disabled (No. 99); and (c) Recommendation concerning Vocational Rehabilitation and Employment (Disabled Persons) (No. 168) (1983). These conventions were ratified by Spain in 1990 (ILO, 2015; O'reilly, 2007).

Reco No. 99 was the first document to contain VR standards regarding vocational guidance, vocational training, and the placement of PWDs, and stipulated the basic principles of VR service provision for PWDs (ILO, 2015). Both Con No. 159 and Reco No. 168 were then issued to complement and support Rec No. 99. Generally, they directed States to develop national policies for the VR of PWDs, and to periodically implement and review such policies. They also include measures (e.g., VR services and employment opportunities) for all categories of disability and enhance PWDs' access to self-employment.

To complement the ILO's efforts and integrate PWDs into the workplace, the Council of Europe (COE) issued specific recommendations related to VR standards, such as Reco No. R(92)6, designed to assist PWDs to lead the fullest life possible in accordance with their ability

and potential. It also included detailed sections on vocational guidance and training, employment, and social integration (COE, 1995).

The COE has issued a number of recommendations concerning VR international standards, including vocational assessment, vocational training, and employment, which are relevant to the ILO conventions and recommendations (COE, 1995). Both Reco No. R(92)6 and Resolution AP(95)3 take the ILO conventions (No. 159, No. 168) into consideration (COE, 2006). Recommendation Rec(2006)5 of the COE consists of 15 action lines: Action line No. 5 deals specifically with employment, vocational guidance, and training of PWDs (O'reilly, 2007), emphasizing that employment plays an important role in promoting their economic independence and social integration (COE, 2006).

Evaluating any program, including VR programs, is a valuable tool to measure an organization's performance, as it can help to address weaknesses and demonstrate success or progress (Thibodeau, 1991). For this reason, evaluation is immensely important in highlighting the impact and effectiveness of services provided as a means to promote staff development, modify policies, and develop programs (Posavac, 2015).

A number of studies have demonstrated the need to replace traditional methods of evaluating VR programs, which use quantitative measures such as the percentage of successful disabled consumers who are served by an agency, in order to gain an accurate understanding of the performance of VR programs (Abrams & Tucker, 1989; Bolton, 1987; Emener & Placido, 1982; Janikowski, Bordieri, & Musgrave, 1991; Patterson & Leach, 1987; Posavac, 2015; Wright, Leahy, & Shapson, 1987).

Instead, evaluation of VR programs should also include consumer feedback and views on the services received (Capella, 2004; Russell, 1990). For example, Tucker, Abrams, Chennault,

Stanger, and Herman (1997) have emphasized the importance of consumer ratings in the appraisal process. Service providers and evaluators must ensure that their views are unbiased and/or that they do not ignore consumer satisfaction (Torres, 1990), because a high level of consumer satisfaction is one of the key features of a high-quality rehabilitation system (Kosciulek, 1999).

### **Statement of the Problem**

VR program is necessary, so that PWDs can have an independent life (Perdue, 2011). VR researchers have recommended that PWDs would be trained for employment according to the international standards, which take the form of international conventions and recommendations. Hence, by using the international standards concerned with VR to prepare PWDs for decent employment will help them to remain independent by increasing their confidence, as well as approving them to overcome obstacles. In addition, it would allow the disabled to investigate different employment options through short-term workplace trials (Hanson, 1998; ILO, 2001; Perdue, 2011).

Research into evaluating the effectiveness of VR programs has generally been conducted using the secondary data of PWD analysis and various types of interview (including open-ended). For example, Giesen and Hierholzer (2016) utilized FY 2011 RSA-911 data on 3,610 consumers with visual impairments to examine service patterns and evaluate the impact of VR services on competitive employment results. A relationship exists between service groupings and job-related services, evaluation, and training and supports. Guy (2009) conducted face-to-face interviews using open-ended questions to explore the lived experiences of 13 PWDs who had been served by Navajo nation VR agencies. The participants indicated that the provision of VR

services (e.g., placement assistance and follow-up services) led to successful consumer outcomes in terms of VR.

Many studies have focused on the perceptions of VR staff, counselors, administrators, and employers to assess the performance of VR programs, (e.g., Eugene & Miller, 2010; Honeycutt, Bardos, & McLeod, 2015; Ståhl, Andersén, Anderzén, & Larsson, 2017). Eugene and Miller (2010) developed an instrument to measure 122 practitioners' perceptions of the importance of counseling in the VR process in Arkansas, and found that vocational counseling improved the value of service delivery to PWDs.

Many instruments in the field of VR have been used to describe the types of VR service received or required and consumers' recommendations to improve VR programs based on PWDs' feedback. Meade, Armstrong, Barrett, Ellenbogen, and Jackson (2006) surveyed 539 individuals with spinal cord injury in the Commonwealth of Virginia to describe the types of received and needed services and found that the most frequently desired service was assistance with developing a new job skill.

Some researchers have developed new instruments to measure the engagement and satisfaction of PWDs in VR programs. These include Capella and Turner's (2004) reliable and validated consumer satisfaction instrument, which comprised three factors (counselor, services, and agency) based on the results of factor analysis. Dutta et al. (2017) developed and validated the VR engagement scale in a sample of 277 PWDs in the USA. Their findings supported a one-factor measurement structure of their scale and is a good model.

Although many instruments exist to measure the satisfaction and engagement of PWDs and the effectiveness of VR programs, no tools have been developed based on ILO or/and COE standards. Although several studies have indicated the importance of providing VR for PWDs

(Bell & Mino, 2015) within standardized services to achieve the best outcomes (Beveridge & Fabian, 2007; Russell, 1990), little attention has been paid to measuring the implementation of international standards related to VR through a valid and reliable instrument. If VR centers are to systematically provide quality VR services to PWDs, valid and reliable instruments are needed to guide and evaluate their development based on international standards.

Prior to developing our instrument, we reviewed the VR literature to identify what valid instruments had previously been developed to measure PWD perceptions regarding the application of international VR standards in VR centers. Dicc's (2008) scale evaluates the implementation of international standards in VR centers, and has recently been utilized in Al-Oweidi's (2015) study. Dicc (2008) built a model for international VR standards that examined the degree of application of the VR standards for PWDs from the perspective of 114 VR managers and trainers in two VR centers in Kuwait State. The 119 scale items were used to examine 12 dimensions related to ILO and Arab labor organization standards, including evaluation, diagnosis, and determining eligibility.

In another study, Al-Oweidi (2015) used Dicc's (2008) scale to evaluate the VR services provided to PWDs based on the perceptions of 56 managers and teachers in Jordan. The findings indicated that the applicability degree ranged between high and moderate, where evaluation is high in the center's philosophy, the center's aims for VR, and training standards.

However, neither Dicc's (2008) nor Al-Oweidi's (2015) research validated the scale by employing exploratory factor analysis to analyze which variables go together. Both studies relied solely on content validity or the response of an expert group for validation. Evaluation of VR programs should include consumer feedback on the services received (Capella & Turner, 2004; Russell, 1990), but none was designed specifically to measure PWDs' perceptions. Furthermore,

no Spanish instrument has been validated for measuring PWDs' perceptions regarding the extent of application of international standards by VR associations. Therefore, in this study, the instrument was designed in English, and a Spanish translation of the instrument was created, which was then validated among Spanish PWDs in the Basque region.

### **Research Objectives**

The objectives of the present study are to:

1. Describe the current situation with regards to the services of VR that have been provided for the consumers with disabilities;
2. Analyze the opinions of the consumers with disabilities with regards to the VR services provided for them;
3. Develop an instrument to measure PWDs' perceptions of the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country;
4. Examine the range of application of international standards at Basque VR centers from the perspective of PWDs and managers;
5. Determine if there are differences in the levels of applying international standards due to: (a) gender, age, level of education, status of disability, and work status of PWDs, (b) gender, age, level of education, and experience work of managers, and (c) the type of respondents (managers and people with disabilities).

### **Research Questions**

The research questions of study are as follows:

Q1: What is the current situation with regards to the services of vocational rehabilitation provided for persons with disabilities at vocational rehabilitation centers in the Basque country?

Q2: What are the opinions of the people with disabilities about the vocational rehabilitation services that is provided to them?

Q3: What is the application degree of international vocational rehabilitation standards in the vocational rehabilitation centers of the Basque country from the perspective of people with disabilities and managers?

Q4: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, status of disability, and work status of PWDs?

Q5: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, and experience work of managers?

Q6: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to the type of respondents (PWDs and managers)?

### **Significance of the Study**

In the recent years, there has been a strong interest in reforming and improving the current practice of VR programs for PWDs through international legislation, recommendations and conventions, which would provide VR services to PWDs by creating a set of standards which would regulated these services by achieving decent work and integrating people with disabilities in the society.

Furthermore, this study is significant for the several reasons: (a) may contribute to the theoretical part in the field of special education, specifically about the VR programs to PWDs, (b) centers that apply the recommended standards derived from the result of this study will be

able to train PWDs better, in order to enhance the levels of services provided in the VR centers, (c) could enhance the knowledge of decision-makers and managers who work in the VR field about the international criteria, in order to rehabilitate and qualify these disabled individuals, (d) help PWDs make better career choices after completing vocational training. (e) providing VR for PWDs within standardized services is linked to a higher likelihood of goal attainment, leading to better outcomes and improved VR services, (f) a reliable and valid instrument to measure the extent of application of international VR standards has positive implications for consumers with disabilities, VR agencies, and VR counselors in terms of evaluating VR programs, and (g) to contribute to the current literature by giving the field more information about the adoption of these standards will empower PWDs economically and socially through productive employment organized by VR centers. Consequently, the extent to which the success of PWDs plays a role in predicting the performance of a VR program can be determined. Additionally, insight into the appropriateness of VR services to the individual needs of PWDs and evaluations of program effectiveness in VR centers can be gained.

### **Definition of Terms**

Several key terms need to be operationally defined for clarification purposes before research regarding international vocational rehabilitation standards can be conducted. The following definitions will assist in the understanding of the study:

**Vocational rehabilitation:** “Vocational rehabilitation is a process which enables a disabled person to secure, retain and advance in suitable employment and thereby to further such person’s integration or reintegration into society.” (ILO, 2018, p. 2)

**International standards:** Legal instruments for the creation of principles and norms drawn up by the International Labour Organization’s (ILO) constituents, setting out the basic

principles and rights at work (ILO, 2015). Adoption of these standards is designed to empower PWDs economically and socially through productive employment organized by VR centers (O'reilly, 2007). The standards take two forms: conventions, which are legally binding international treaties that may be ratified by member states, and recommendations, which serve as non-binding guidelines (ILO, 2015).

**International vocational rehabilitation standards:** A set of regulatory action or guidelines and rules, based principally on the conventions and recommendations made by the ILO and the COE, governing and regulating the process of the provision of vocational rehabilitation services for people with disabilities.

**Vocational rehabilitation services:** VR program provides PWDs through a variety of systematic and meaningful services. Essentially, VR services include vocational assessment, vocational guidance, vocational training, job placement, and follow up (Counsel of Europe, 1995; ILO, 2004; Wilhelm & McCormick, 2013; Gutierrez, 2014).

**People with disabilities:** “An individual whose prospects of securing, returning to, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognized physical, sensory, intellectual or mental impairment” (ILO, 2016, p. 5).

**Basque country:** The Basque country (also known as Euskadi) is an Autonomous Community in the north of Spain, and it comprises three regions or provinces Araba/Alava, Bizkaia and Gipuzkoa (EURES, 2018).

### **Structure of Dissertation**

This chapter presented an introduction to the study, including the statement of the problem, purpose of the study, the research questions, significance of the study, and definition of terms. The remainder of this study will be divided into eight chapters. The first four chapters

provide a comprehensive review of the literature and theoretical framework of the study. The remaining four chapters present the methodology, results, discussion, and conclusion as following:

**Chapter Introduction:** This chapter provides an introductory background and overview of the study that presents the importance of studying the research topics; vocational rehabilitation and international standards, leading to the development and statement of the research problem and objectives. The contributions of this study are briefly explained to present knowledge advancement for future study.

**Chapter 1 Literature Review: Vocational rehabilitation:** We review the extant literature relating to the vocational rehabilitation to shape our understanding of the concept and characteristic of the vocational rehabilitation program provided for PWDs. Then, the definition of vocational rehabilitation services is discussed. This chapter gives details of the research context that discusses general legal and historical foundations of VR services and characteristics of the VR program in Basque country.

**Chapter 2 Literature review: International standards:** International standards are discussed and classified considering in particular international standards concerning vocational rehabilitation for PWDs. Then, the definition of international standards concerning vocational rehabilitation and the dimensions conceptualization of these standards are discussed.

**Chapter 3 Literature review: People with disabilities:** This chapter provides in depth information regarding the literature review in the field of PWDs, beginning with a broad overview of the defining PWDs and disabilities. Different models of disability are discussed. Then, the definitions of physical disability are discussed. The importance of employment for PWDs is also explained.

**Chapter 4 Literature review: Evaluation of vocational rehabilitation program:** This chapter sets the boundary of the research showing how our research objectives are translated into a set of very specific questions. Based on the previous findings in related studies a conceptual framework is produced depicting all relevant constructs and their associations. The major and previous studies related to the study questions and the international VR standards of PWDs are analyzed. Significant findings of the research reviewed and their relevance to the proposed study are also provided.

**Chapter 5 Research Methodology:** This chapter presents and describes the methodology used in this research: a discussion of the research design, this leads to the choice of research methods, data collection, sampling design and construct measurements, and data analysis techniques. The ethical considerations are also discussed.

**Chapter 6 Results:** This chapter presents the results of the study. Before addressing the research questions and testing the proposed hypotheses, first the collected data were first examined in order to ensure the appropriateness of the planned inferential statistics analyses. These examinations included checks for the missing data and outliers and testing normality. Second, it was necessary to study the survey data set by using factor analysis and Cronbach's alpha. Third descriptive statistics was performed to present the mean, standard deviation, frequency, and percentage for data collected. After reporting the statistical findings, the chapter confirms hypotheses testing and the results.

**Chapter 7 Discussion:** This chapter discusses the findings within existing knowledge. The summary of the study findings are presented. The interpretations, declaring our opinions, and explaining the effects of the findings based on previous studies are explained.

**Chapter 8 Implications, Limitations, and Conclusions:** The theoretical and managerial implications are also presented. Finally, the limitations of the study are discussed and suggestions for future research are outlined.

## **Chapter 1. VOCATIONAL REHABILITATION**

### **1.1 Introduction**

A person's ability to work can be profoundly affected by his or her illness, disability and a range of contextual factors (e.g., work injured) (Chamberlain et al., 2009). Therefore, for some PWDs, rehabilitation is important to being able to participate in education, the labour market, and civic life (WHO, 2011). For example, medical rehabilitation is an essential part of the process that enables injured employees to return to their jobs, but other rehabilitation disciplines (e.g. vocational rehabilitation) are also needed (Chamberlain et al., 2009).

This is because VR programs are designed to assist PWDs to prepare for and engage in gainful employment (Maiden, 2014; Morgan, 2013; Pi, 2006). They help PWDs to integrate into society (Rubin & Roessler, 2008), and conversely contribute to changing the views and attitudes of society toward PWDs (Al-Oweidi, 2015; Fabian, Ethridge, & Beveridge, 2009; Reaume, 2014) by providing appropriate VR services that offer decent work to PWDs.

This chapter reviews, analyzes, and discusses the literature relevant to VR services for PWDs under the following titles: definition of VR, history of vocational rehabilitation, philosophy and the principles of VR, goals of VR, VR services, and international legislations related to VR and employment program for PWDs, particularly in the Basque country.

### **1.2 Defining Vocational Rehabilitation**

Numerous definitions have been suggested for VR, some of which reflect a specific perspective, context, or legislative background. In general, VR programs provide services to help, find, or maintain employment to the disabled (Davis & Sylvester, 2012). VR (also called occupational rehabilitation or work rehabilitation) is directed to employment outcomes (Waddell, Burton & Kendall, 2008). VR measures support young adults with disabilities to obtain

vocational training and to enter the labor market (Tophoven, Reims, & Tisch, 2018). Chan et al. (1997) defined VR as a successive service provided through a number of regular and logical interventions and/or procedures that started by referral and end by decent work to meet the needs of PWDs.

In this context, the British Society of Rehabilitation Medicine (2008) defined the VR as a process whereby those disadvantaged by illness or disability can be enabled to access, maintain or return to employment, or other useful occupation. Dean, Dolan and Schmidt (1999) state that VR is a program designed to provide “a wide range of employment-related services to persons with physical, mental, or emotional impairments” (p.163). Pruett, Swett, Chan, Rosenthal, and Lee (2008) have expanded on this definition, stating that VR services typically include: “diagnostic evaluation, medical restoration, personal adjustment training, independent living training, job readiness training, vocational training, and job placement” (p.57).

As reported by ILO recommendation No. 99, paragraph one that the term VR:

Are means that part of the continuous and coordinated process of rehabilitation, which involves the provision of those vocational services, e.g. vocational guidance, vocational training and selective placement, designed to enable a disabled person to secure and retain suitable employment. (p. 1)

As stated in the convention No. 159 about VR and employment, issued by the ILO in (1983) “Vocational rehabilitation is a process which enables a disabled person to secure, retain and advance in suitable employment and thereby to further such person's integration or reintegration into society” (p. 2). This definition is similar to that proposed by Gobelet and

Franchignoni (2006), “Vocational rehabilitation is defined as enabling individuals with either temporary or permanent disability to access, return to, or remain in, employment” (p. 6).

However, both the ILO of 1983 and the Gobelet and Franchignoni (2006) mostly indicate towards the goals of the VR program. They involve them to achieve their employment and integration in the society. They do not present a clear description of what VR program is. In keeping with the definition of ILO, we propose that VR can be understood as a result of meeting professional and vocational needs, as well as for assisting PWD to get jobs and be integrated into the society through a structured process, comprising of many serial services, such as vocational assessment, vocational training, vocational orientation, job placement, and follow-up.

### **1.3 Philosophy and Goals of Vocational Rehabilitation**

The basic philosophy of VR is concentrates on PWD as a human being who deserves to live with dignity and respect in the community where he/she lives in (Al- Zu’mut, 2011). The VR program’s philosophy has also emphasized on returning to work, living independently, and respecting PWDs (Al-Oweidi, 2015; Diee, 2008). The basic purpose of VR should be the promotion of transferred PWD, from the idea of depending on others, to the need to depend on him/herself.

Kosciulek et al. (1997) confirmed that VR services contribute to empowering PWDs to obtain and maintain useful work and economic self-sufficiency. Furthermore, Escorpizo, Brage, Home and Stucki (2016) highlights on that VR program should contribute to the equal opportunity and treatment of disabled people in training and employment. For example, Nalven, Oursler, Green, and Cordeiro (2005) found that PWDs who were in receipt of supported employment or job coaching services were pleased with those services.

According to Convention concerning Vocational rehabilitation and Employment of disabled persons (No.159, 1983), the most essential principle of VR and employment policies is the integration of PWDs into mainstream work-associated programs and services. In her major study, Murray (2007) urged that the most important principles that would be consider by the VR staff are: (1) dealing with the disabled person as a human being; (2) focusing on the abilities of the disabled person and helping them to reach the maximum degree of self – reliance and independence; and (3) a disabled person has the right to choose the decisions and objectives and he or she decides how to achieve them.

A number of studies have found that the major goal of VR is to help PWDs regain their independence through their employment and integration into the society (Jenkins, Patterson, & Szymanski, 1992; Rubin & Roessler, 2008). In other words, as employment is the primary objective of VR, it shall be considered one of the most important components that contribute to integration them in society. The integration enables PWDs to live with people without disabilities alongside by increasing their social participation and establishing communication with other. This can be accomplished through improving VR services as part of creating the decent job opportunities (Patterson, Bruyère, Szymanski, & Jenkins, 2005).

For example, Lawer, Brusilovskiy, Mark and Mandell (2009) have demonstrated that the goal of VR is to maximize employment outcomes through providing various services such as assessment, guidance, job search assistance, assistive technology, and vocational training. According to EU (2006), this is because the employment rates of PWDs are very low. The employers also think that PWDs unable to work due to a disability (Patterson et al., 2005; Rubin & Roessler, 2008).

A recent study by Falkum et al. (2017) concluded that people with psychotic disorders who wish to work should be offered VR services. This is because the authors found that the number of working participants in the VR intervention group in Norway increased from 17% at baseline to 77% at the end of the intervention period.

Accordance with European Agency for Special Needs and Inclusive Education (2014) the goal of VR indicates to “there is a special focus on learners’ adaptation to the requirements of the economy and businesses and the learners need to obtain a job after their training period” (p. 16). This can be succeeded through cooperation between employers and rehabilitation staff to identify and overcome employment barriers and they can modify the workplace to adapt to the needs of disabled individuals.

VR programs are designed to assist PWDs to prepare for and engage in gainful employment (Pi, 2006; Morgan, 2013; Maiden, 2014). They help PWDs to integrate into society (Rubin & Roessler, 2008), and conversely contribute to changing the views and attitudes of society toward PWDs (Al-Oweidi, 2015; Fabian et al., 2009; Reaume, 2014) by providing appropriate VR services that offer decent work to PWDs.

Through the review of previous literature, we may summarize the goals of VR include the following: (a) promoting a training and capacity-building for a suitable career; (b) helping PWD to find suitable work; (c) achieving social security and preventing poverty; (d) helping PWD to build self-confidence; (e) changing negative attitudes towards abilities of work PWDs and; (f) integrating into society.

#### **1.4 Vocational Rehabilitation Services**

VR program provides PWDs through a variety of systematic and meaningful services. Essentially, VR services include vocational assessment, vocational guidance, vocational training,

job placement, and follow up (Counsel of Europe, 1995; ILO, 2004; Wilhelm & McCormick, 2013; Gutierrez, 2014). As reported by the glossary of terms in rehabilitation (2015) VR services designed to get PWDs prepared for employment and these services can include training, education, transportation and job placement.

However, VR services are individualized and they can be delivered to the people who have physical or mental impairments. These services include assessment, counselling and guidance, restoration, training, job development, and job placement (Kalisky, 2002; Wilhelm & McCormick, 2013). This view is supported by Gutierrez (2014) who finds that VR services include medical, psychosocial, and vocational assessment, job placement, job search training, work adjustment training, and vocational training.

A longitudinal study of the VR services program by Hayward and Schmid (2003) reported that it is necessary designing an individualized plan for employment (IPE) for each person to describe the services needed to achieve their vocational goals. IPE is a written document or contract outlining an individual's vocational goal and services that will be provided to every PWD to reach his or her goal (Hayward & Schmid, 2003).

Any services described in the IPE, it is required to assist an individual with a disability in preparing for securing, retaining, or regaining an employment outcome (Ruggiero, 2012). It also has consistency with strengths, resources, priorities, concerns, abilities, capabilities, interests and informed choice of the PWD (Ruggiero, 2012). Selection of services is dependent on several factors like the needs of the individual, vocational goals, funding, and availability of services (Rubin & Roessler, 2008). Thus, the VR services for PWDs include the following:

### **1.4.1 Vocational Assessment**

The COE(1995) defines vocational assessment as “means the process of assessing the vocational capacities of persons together with job requirements and the comparison and matching of these assessments with a view to vocational integration or reintegration” (p. 3). This definition is supported by ILO (2004) that shows the assessment as the process of determining an individual’s interests, abilities, aptitudes and skills to identify vocational strengths, needs and career potential. Assessment can assist a disabled person better understand, their interests as they related to the labor market, their abilities regarding job skills and tasks, as well as possible job or education accommodations (Rubin & Roessler, 2008).

The assessment data often collects across a series of evaluations, and may be provided by several specialists (Rubin & Rossler, 2008). Johnstone et al. (2003) demonstrated assessment services to be the most frequently provided service by VR counselors as it assists with: identifying relative strengths and weaknesses, determining eligibility, and helps in direction of VR services. The assessment is an essential part of the VR process and is ongoing process that are done throughout the VR (Chan et al., 1997). The vocational assessment is used as a strategy for making recommendations for program planning, goal setting and service delivery, such as in determining readiness for vocational training and/or employment (Bruce, 1995).

### **1.4.2 Pre-Vocational Services.**

The ILO (1987) defines the pre-vocational services as the period in which the disabled are provided with the skills that enable them to carry out vocational training consistent with their abilities and tendencies. Furthermore, this service starts between the ages 12-16 years until the beginning of vocational training service. It aims to develop the skills of pre-vocational which include understand and accept work times, sustain attention to tasks, do non-preferred tasks

without complaining, follow multi-step directions and demonstrate safety skills in the community (Janes, 2001).

### **1.4.3 Vocational Guidance Services.**

These services refer to the process of helping PWDs to solve problems of choice of profession, taking into account the characteristics of persons with regard to employment opportunities (Rubin & Roessler, 1995). VR counselors would then serve the role of providing counseling and guidance services.

As stated by ILO recommendation No. 99, paragraph 4, the process of vocational guidance should contain as appropriate in individual cases (a) interview with a vocational guidance officer; (b) examination of record of work experience; (c) examination of scholastic or other records relating to education or training received; (d) medical examination for vocational guidance purposes and; (e) appropriate tests of capacity and aptitude, and, where desirable, other psychological tests (ILO, 1987).

### **1.4.4 Vocational Training Services.**

Vocational training services are perceived as the most important services that provided for disabled persons. It is offered after having been provided the vocational orientation and evaluation services and should be more suited to the abilities and tendencies of PWD, due regard being the needs of the local market to facilitate employment (EU, 1995; ILO, 1998).

According to ILO, Disabled Persons Convention No.155, Recommendation No.168, (1993), Vocational training is one means of helping a disabled person to become settled in employment. It is not an end in itself, but a means to an end - the end being suitable work. If a disabled person can be placed in suitable employment without training, then vocational training is not necessary the vocational training process is based on the individualized plan for

employment (IPE) that is planned by the VR counselor according to results of evaluation, vocational goal, and the services to be provided to reach the goal (COE, 1995; ILO, 1998; Shaista & Adeela, 2015).

#### **1.4.5 Job Placement Services.**

Job placement describes referral to a specific job opening that results in an interview, whether or not a job is obtained (Adamson et al., 2013). Job placement considers the highest level in the VR program because it determines the advancing of the previous services such as vocational training and guidance (Dutta, Gerverey, Chan, Chou, & Ditchma, 2008). Bolton, Bellini, and Brookings (2002) described job placement assistance as the most important predictor of long-term employment for individuals receiving VR services in the US.

As claimed by COE recommendation CM/Rec (2013), governments have to implement the best practices and principle to assist transition from training to employment for young persons with disabilities and to encourage employers in creating productive employment and decent work for persons with disabilities. The placement has been defined as “the final phase, the bridge by which the individual passes from supportive services to the competitive work-life of the community” (Wuenschel & Brady, 1959, p. 16).

The study of Gilbride et al. (2000) showed that helping individuals with disabilities finding secure jobs has always been and probably to be a fundamental element of the VR mission in addition, if a disabled person does not find a job, the goal will not achieve to fulfil the social and economic integration of disabled people.

As reported by ILO (2004) and EU (2010), there are various strategies for employment PWDs, which it varies according to the type, severity of disability, economic situation and legislations as an employment under normal competitive conditions, self-employment, sheltered

employment, handicraft work and home based jobs for disabled to work from home. Similarly, job placement services are the largest contributing factor to reaching competitive employment through the VR program (Bolton et al., 2000; Gilbride, Stensrud, & Johnson, 1994).

#### **1.4.6 Follow-up Services.**

Follow up services define as track the performance of individuals with disabilities in the labor market from time to time to make sure of security and stability in their employment, the progress made in achieving the goals and adjusting with the employer, and job and workers (Rubin & Roessler, 2001).

Furthermore, Ramos (2007) has pointed out that follow-up services appeared as important services to measure acceptance or satisfaction of the employees and employers and revision of vocational training services in accordance with the market needs and population characteristics, without follow-up services the program would be ineffective to apply the best practices.

### **1.5 Historical and Legal Foundations of Vocational Rehabilitation Services**

Legislation reflecting pivotal political and philosophical changes, which focused on VR for PWDs. Numerous legislations (international, state, and autonomous community level) were initiated, which over time helped to shape the present foundations for VR.

#### **1.5.1 International level**

The international organizations such as ILO, United Nations (UN) and the European Union (EU) have dedicated efforts to promote employment opportunities for PWDs. They also have made continued efforts to obtain decent and productive work in conditions of liberty, fairness, security and equality, and human dignity (Lord et al., 2010).

The first significant convention and recommendation on the right of PWDs to VR and work opportunities is ILO recommendation No. 71, (1944) (Transition from War to Peace), which confirmed that disabled people:

Whatever the origin of their disability, should be provided with full opportunities for rehabilitation, specialized vocational guidance, training and retraining, and employment on useful work and persons with disabilities should, wherever possible, be trained with other workers, under the same conditions and the equal pay, and called for equal work opportunity for disabled persons and for affirmative action to promote the employment of workers with serious disabilities. (O'Reilly, 2007, p. 4)

This was later followed by The Universal Declaration of Human Rights of UN 1948 that provided the right of everyone to work, including PWDs. The Article 23 of the declaration states: “Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment. Everyone, without discrimination, has the right to equal pay for equal work” (article, 23).

In 1955, endorsement of ILO Recommendation No. 99 concerning VR of Disabled Persons, which established the basis for national laws and practices concerning vocational guidance, vocational training and placement of PWDs.

European Council provides active policy in ensuring of disabled persons' rights in regional level. According to the Article 15, Part I of the European Social Charter “Disabled persons have the right to vocational training, rehabilitation and resettlement, whatever the origin and nature of their disability” and article 10, Part I of the revised document is “Everyone has the right to appropriate facilities for vocational training” (European Social Chapter CETS No.:035).

The European social charter (1966) underlined that PWDs have the right to independence, social integration, vocational training, and participation in society life like most population (Lord et al., 2010).

The two most important documents to get out of the UN are the Declaration on the Rights of Mentally Retarded Persons (United Nations, 1971) and the Declaration on the Rights of Disabled Persons (United Nations, 1975). These declarations recognize the rights that PWDs have a right to perform productive work or to engage in any other meaningful occupation.

The ILO Human Resources Development Convention, 1975 (No. 142) provided an inclusive and consistent policies and programs of vocational guidance and vocational training, closely linked with employment through public employment services (O'Reilly, 2007). The first successful effort in the field of regulation on disabled persons' rights was the development of the Declaration on the Rights of Disabled Persons in 1975 (Akylov, 2014). The UN General Assembly proclaimed the declaration (resolution 3447) that affirmed that PWDs had the same civil and political rights as other people, as well as the right to vocational training, counselling and placement services, the right to secure and retain employment (O'Reilly, 2007). However, these declarations could not solve the employment challenges of people with disabilities. That because they are not obligated under international law and the human rights of PWDs.

The 1980s have witnessed a growing interest in the rights of PWDs at the international level. The United Nations declared 1981 as the International Year of Disabled Persons. The most significant event of this period came in 1983 with the adoption Convention concerning Vocational rehabilitation and Employment of disabled persons (No.159) and the accompanying Vocational Rehabilitation and Employment (Disabled Persons) Recommendation, (No. 168) that adopted by ILO (Akylov, 2014; O'Reilly, 2007). However, these conventions provided a

foundation for evaluating VR services (vocational guidance, vocational training, placement, employment). They provided measures that taken into account the establishment and development of VR and employment services for PWDs.

In 1992, the COE adopted the Recommendation No. R(92)6 on a coherent policy for people with disabilities which includes detailed sections on prevention and health education, vocational guidance, training, and employment (Garly, 2005; O'Reilly, 2007). This is important because this recommendation spurred the member states to establish organizations that would help the PWDs to become more independent (Akylov, 2014).

The United Nations adopted the Standard Rules on Equalization of Opportunity for PWDs in 1993. The Standard Rules requested all states to take several measures to confirm that PWDs have equal opportunities for getting productive employment in the labor market (UN, 1993).

The European Social Charter of the COE was widely revised in 1996, and the COE paid particular attention to the work and measures adopted by the ILO (O'Reilly, 2007). According to the Article 15, Part I of the European Social Charter “Disabled persons have the right to vocational training, rehabilitation and resettlement, whatever the origin and nature of their disability” and article 10, Part I of the revised document is “Everyone has the right to appropriate facilities for vocational training” (European Social Chapter CETS No.:035).

For the first time in the history of the EU, the charter of fundamental rights of the European Union was issued at the Nice European summit in December 2000, which state the full set of civil, political, economic and social rights of all European citizens and all individuals' resident in the EU, including PWDs, in the employment, vocational and continuing training issues.

On the other hand, a European Union Directive, approved at the end of 2000, prohibits direct and indirect discrimination in the field of employment and vocational training, for a number of reasons, including disability (European Union, 2014). With attention to the ILO code of practice on managing disability in the workplace was adopted in 2002 to provide guidance to employers to implement the types of measures contained in the international instruments (O'reilly, 2007).

The year 2003 was determined the European year of PWDs, its aim to advance awareness of the rights of disabled people to equal opportunities and continue to work to remove barriers to the integration and participation of PWDs in the labor market (Annamari, 2010). Second European Conference of Ministers responsible for Integration Policies for PWDs was held in Malaga, Spain on 7 and 8 May 2003. The Conference resulted in the provision of a comprehensive approach towards the elaboration of national and international disability policies and legislation duly reflecting the needs of persons with disabilities in all domains, including education, vocational guidance and training, employment (Foster et al., 2012).

The European Conference on Vocational Rehabilitation and Employment of Persons with Disabilities was held in Warsaw, Poland from 23 to 25 October 2003. The main objective of the conference was to review the development of legislation and practice over the past ten years in the field of VR of PWDs. It also aims to enhancement of PWDs' labour market situation to discuss topics connected with the adjustment to European Union standards of legislation on the VR and employment (ILO, 2004).

In 2006, the ILO conference passed a convention on a promotional framework for occupational safety and health and a recommendation on the employment relationship. This

recommendation ensured that all members have to introduce occupational safety and health concepts in educational and vocational training programs (International labor conference, 2009).

The United Nations Convention on the Rights of Persons with Disabilities (CRPD) is a substantial international instrument adopted in 2006. It entered into force on 3 May 2008 as of September 2014. It has 159 signatories and 151 parties, including the European Union. The CRPD has 159 signatories and 151 parties, including the European member states, which consists of fifty articles intended to protect the rights and dignity of PWDs. At whole, the CRPD affirmed in article 26 on rehabilitation and vocational rehabilitation to promote opportunities for PWDs to ensure that they have equal rights to find an employment and a professional career (United Nations, 2006). Nowadays, however, this Convention is one of the most international acts in the field of ensuring disabled persons' rights and particularly labour rights (Akylov, 2014; Bartlett & Peter, 2012).

For the purpose of ensuring full inclusion and promoting VR and employment of PWDs into society, the COE recognized the need to promote and protect their rights and committed to implementing its disability Action Plan 2006-2015. COE Action Plan aims at providing a comprehensive European framework on disability for the period 2006-2015. It deals with the different aspects of the daily life of PWDs, such as line N°5 in relation to employment, vocational guidance, and training (Quarta, 2015).

Recently, in November 2012, the ILO governing body welcomed the disability inclusion initiative, a commitment to include PWDs in all areas of work of the ILO. The gender, equality and diversity branch is responsible for coordinating this important initiative (ILO, 2009).

### 1.5.2 State level (Spain).

Numerous legislations and strategies were initiated in the Spain, which over time helped to shape the present foundations for VR and employment of PWD. In 1887, the Asilo de Inválidos para el Trabajo (Handicapped Workers Asylum) was founded in Madrid, in the Palace of Vista Alegre (Lara & García, 2010; Cantudo, 2013). In 1922, this became the Professional Work Re-education Institute for the Disabled, and in 1933 the National Re-education Institute for the Disabled. Its objective was to provide retraining and vocational re-education for disabled workers (Cuxart, 2006; Lara & García, 2010).

The first Occupational Accident Act was passed in 1900 in Spain protect PWD in their jobs (Cuxart, 2006; Cohen, 2012). This was later followed by the Regulation for certifying occupational disabilities of 1903 (Menendez-Navarro, 2008). Other important measures included the Instituto Nacional de Previsión (INP, National Welfare Institute) of 1908, the Retiro Obrero y el Plan de Seguros (Work Retirement and Insurance Plan) of the INP of 1919 (Cuxart, 2006; Menendez-Navarro, 2008; Cohen, 2012). However, these actions have improved the specific benefit of persons with disabilities, for example, instance pensions, insurance, and disability certification systems.

The Spanish Constitution, passed in 1978, and its ratification by the Spanish people emphasized that human dignity is the basis of political order and social peace (article. 10), it also further guarantees equality under the law to all without discrimination (article. 14), and facilitates citizen participation in the political, economic, cultural and social life (article. 9.2.) (López & Mengual, 2014).

This Constitution provides a general protection to individuals with disabilities, as stated particularly in Article 49 that indicates that the public authorities shall carry out a policy of

preventive care, treatment, rehabilitation and integration of the physically, sensorial and mentally handicapped by giving them the specialized care they require, and affording them special protection for the enjoyment of the rights granted by this Part to all (Verdugo, Jimenez, & Urries, 2000). However, these articles mostly indicate to the protection of PWDs, but they do not present a clear description of rehabilitation laws of PWD for the purposes of employment.

The Social Integration Act of Disabled Persons (LISMI) 1982- based on Article 49 of the Spanish Constitution- is more concrete. It was the first move toward addressing the assistance provided to the PWD in a clear and a certain way with emphasis on rehabilitation and integration. Specifically, Article 7 of LISMI contains various measures in order to achieve integration of PWD in employment, in terms of equal treatment in the ordinary working system or by special sheltered workshop. It should be recalled that the LISMI regulates many vocational models or systems which include regular jobs, special job centers or protected jobs, and occupational therapy centers (Vilà, Pallisera, & Fullana, 2007; Cardona, 2009).

This was later followed by issuing two important action plans, moreover the first one is "Plan of Emergency Measures for the Promotion of Employment for Disabled Persons, approved in 1996 by the Consejo Español de Representantes de Minusválidos (CERMI, Spanish Council of Representatives of the Disabled) (García, 2013).

The second one was "Action Plan for Individuals with a Disability for 1997-2000, prepared by the Instituto de Migraciones y Servicios Sociales (IMSERSO, Migration and Social Services Institute), adopted by all the autonomous governments (i.e. Basque Country, Catalonia, and Galicia) and social organizations, and endorsed by the Spanish government in 1996.

Although the second plan includes the outcomes from various earlier reports which are written after passage of the LISMI, it shows that there remains a several gaps with regard to available

assistance to PWD, especially with respect to implementation of a state policy to prevent disabilities, rehabilitation, and employment generation (Cuxart, 2006; Lara & García, 2010).

For this reason, in 1991 the Ministry of Social Affairs consented to draw up a preliminary Action Plan for Individuals with a Disability that was undertaken in December 1992 by IMSERSO. More importantly, this plan contains five areas intended to achieve maximum self-reliance and independence between PWD, as well as improving active access to labour market participation (Ibáñez & Sánchez, 2005; Vilà et al., 2007).

Its efforts highlighted and addressed five areas, moreover, these are (a) the promotion of health and the prevention of disabilities; (b) full health care and rehabilitation; (c) integration in schools and special education; (d) participation and integration in the job market; and (e) community integration and an independent life (Cuxart, 2006; Lara & García, 2010). However, the area on participation and integration in the job market addressed the VR, work creation, and job protection policies.

In 2000, the Executive Committee of the CERMI adopted an “employment plan for persons with disabilities” to improve the working conditions for PWD. It also highlighted to ensure the participation of this group in employment and training programs (Cuxart, 2006). It seems that the ratification of law equal opportunities, non-discrimination and universal accessibility for PWDs in 2003, it establishes measures to guarantee and enforce the right to equal opportunities for PWDs in all areas of political, economic, cultural, and social life. In particular, in their training and employment (Cuxart, 2006; Lara & García, 2010). In order to provide vocational training and employment services for PWDs who live in rural areas, the law of 45/2007 was approved. In particular, the Article 22 focused on support all forms of

employment, developing professional training programs for unemployed disabled persons (Cardona, 2009).

In 2011 saw the rise of amendments to the Royal Decrees, especially, significant changes on Employment Law 56/2003. For instance, these are (a) Royal Decree Law 1/2011 of 11 February, on urgent measures to promote the transition to stable employment and retraining of unemployed persons; (b) Royal Decree Law 3/2011 of 18 February, on urgent measures to improve employability and reform of active employment policy measures; (c) Royal Decree-Law 14/2011 of 16 September, additional measures on employment policy and regulatory regime of activity of the Forces of State Security; (d) Royal Decree 1542/2011, of 31 October, by which the Spanish Employment Strategy 2012-2014 approved; (e) Spanish Disability Strategy 2012-2020 (Edeka, 2013).

It is however important to note the amendments to the Royal Decrees which includes the effect on the following aspects: the new employment policies will focus on equal access to a free and public service for all, equal opportunities in access to employment, and the priority in that for most needed groups, including PWDs. In addition, designing an individualized employment plan which may include counseling and information for employment and self-employment. Making contacts with companies, organizations and public bodies to facilitate the job placement.

Perhaps the highlight of the Employment Strategy 2012-2014 was developed measures to facilitate the employment of PWDs in the regular labor market, in the protected labor market and, centers special employment. Similarly, the Spanish Disability Strategy 2012-2020 sets out the necessary actions to promote and develop the new disability economy. Enhancing procedures specifically aimed at promoting the inclusion of women with disabilities in the labor market and equal opportunities (García, 2013; Edeka, 2013).

### **1.5.3 Autonomous Community level (Basque Country).**

The Basque Country (also known as Euskadi) is an Autonomous Community in the north of Spain. It covers an area of 7 230.33 km<sup>2</sup> and comprises three regions or provinces Araba/Alava, Bizkaia and Gipuzkoa. According to Survey of Disability, Personal Autonomy and Dependency Situations (2008) it is estimated that approximately 165,400 PWDs in the Basque Country (National Statistics Institute, 2016).

Although autonomous communities have approved the laws and strategies listed above, except that each region, also, has ratified on their own laws and strategies. Furthermore, at the level of the Basque country has been developing strategies which are addressed generally aspects related to disabilities, particularly employment and rehabilitation of persons with disabilities. In this area, the department of social action with the participation of social organizations of disability initiated a “Plan for participation and quality of life of PWDs in Bizkaia. 2010-2013.”

The objective of the plan is to improve the performance of individuals, institutions and entities that involved in the care and promotion of PWDs and their families in Bizkaia, progressively by refocusing on model of participation and quality of life in the community. One of the most important topics covered by this plan is creation of conditions for PWD to achieve maximum self-reliance and independence among them to participate effectively in a society.

This was reinforced by the Strategic Plan Disability of Gipuzkoa, which referred to the equal opportunities, independent living, the right to choose, integration and standardization, satisfaction, positive action towards women, and quality of care. The adoption of Basque Plan for Social Inclusion (2011-2015) was another significant positive movement toward PWD. It ensures effective active inclusion from employment the most vulnerable people, including PWDs

to reduce poverty and social exclusion by ensuring a sufficient income in decent work and developing job-training programs.

In the Basque Country was also developed Basque Employment Strategy (2011-2014) to reduce and eliminate barriers to access PWDs to the labor market. It was designed to promote social inclusion and increase the employment rate of PWD, and give special priority to vocational guidance and training for the unemployed people.

The Ararteko is the high commission of the Basque Parliament to defend the rights of persons with regard to the actions and policies of the government of the Basque Country (Basque Government, provincial councils, municipalities or public bodies dependent some of those administrations).

The most prominent proposals on employment and VR contained in Ararteko are: (a) Facilitate training for persons with disabilities through flexible access to some training requirements, (b) adapting vocational and professional training courses to the characteristics of PWDs by increasing the number of hours of training,(c) a presence of a smaller number of trainees in each chapter, and (d) paying attention to special needs arising from the type of disability such as sign language or Braille, and modification of physical curricula.

Moreover, increase courses for training of PWD considering grades and types of disability. Development of specific plans on continuing training for workers with disabilities in ordinary and semi and protected jobs. Similarly, provide support for labour legislation targeted at family, job market, and training centers.

Based on the proposals presented by the Ararteko, many of the recommendations were adopted, of which the most notable are increasing employment for disabled, including through the enactment of laws and policies that support the proportion of recruitment of disabled in the

public and private sectors. In addition, promoting the access to the employment ordinary by raising public awareness about disability.

## **1.6 Summary**

This chapter has reviewed the background and an overview of the research relevant to the VR in order to build understanding of the evolution of VR through time. This chapter provides review to the most important international legislations that are paramount in shaping and guiding employment and VR programs. This review has presented a foundation for VR services-delivery to PWDs. It also has highlighted VR services that are provided in the Basque country.

VR programs are designed to assist PWDs to prepare for and engage in gainful employment (Pi, 2006; Morgan, 2013; Maiden, 2014). They help PWDs to integrate into society (Rubin & Roessler, 2008), and conversely contribute to changing the views and attitudes of society toward PWDs by providing appropriate VR services that offer decent work to PWDs.

By adopting and confirming through international organizations, such as ILO, UN and EU, to protect the rights of individuals with disabilities as other people. Perhaps the most important achievements on the international standards concerning VR of PWD are recommendations No. 99, No. 168 and convention No. 159 that were issued in 1955-1983 by ILO, in addition recommendation No. r(92)6, resolution AP(95)3 and recommendation No. r(92)6 that were adopted in 1992-1995 by the Council of Europe.

The next chapter addresses literature regarding the international standards concerning VR for disabled people.

## **Chapter 2. INTERNATIONAL STANDARDS**

### **2.1 Introduction**

The ILO and the COE address the employment and integration challenges into society of PWDs internationally. These organizations initiated to develop various acts which are concerning the international standards in the field of VR ensuring disabled persons' rights to work. The previous chapter (1) has outlined a literature review and theoretical foundations about the VR and legal documents such as recommendation and conventions regarding basis legal for international standards of VR. Hence, it is important to determine the underlying international standards concerning VR for disabled people.

The purpose of this chapter is to review the current literature related to international standards concerning VR. It will provide a brief about the importance using the standards in various countries by highlighting on what is meant by international standards. This chapter also conceptualizes the most significant standards that have been used in this study. Therefore, the following includes a review of the literature as follow: the factors which led to some countries to use of international standards, definition and description for international standards concerning VR, the benefits of international standards, international standards arising from ILO and COE, summary of standards that will be used in this study and the obstacles that limit the application of international standards of VR.

### **2.2 Factors Affecting the Adoption of International Standards**

International standards take the form of international labor Conventions and Recommendations. Through ratifications by member States, Conventions create binding obligations to implement their provisions. Recommendations are nonbinding instruments that provide guidance on policy, legislation and practice (ILO, 2009). For example, approximately 80

countries have ratified the convention No. 159 that was issued in 1983 by ILO, which containing on the international standards related to VR for PWD. For instance, in 1990 some countries like Spain, Iceland, Australia and Brazil approved for that convention. It also indicates give special attention to the evolution of standards concerning PWD (O'reilly, 2003).

Not only are there a binding obligation to implement international standards, but there are many factors led to some countries to implement them. First of all, organizations and trade unions play a vital role in defending on the rights of PWDs and they called to implement policies on rehabilitation training and education to further integration or reintegration into society (O'Reilly, 2007). Therefore, the pressure and influence exerted by the United Nations, the ILO and the WHO to provide PWDs with rehabilitation and vocational training and preparing them for work (ILO, 2008). Secondly, perceptions of employers and co-workers have been changed positively towards capacity and the rights of PWDs (Rubin & Roessler, 2008). Thirdly, the development of theories and strategies in the field of special education and the evolution of disability policies (Heron & Murray, 2001; O'reilly, 2003; Beveridge & Fabian, 2007; Rubin & Roessler, 2008).

### **2.3 Defining of International Standards Concerning Vocational Rehabilitation**

In general, international standards are legal instruments for the addition of principles and norms drawn up by the ILO's constituents, setting out the basic principles and rights at work (ILO, 2015). They take two forms: conventions, which are legally binding international treaties that may be ratified by the member states, and recommendations, which serve as non-binding guidelines. In many cases, convention lays down the basic principles to be implemented by the ratifying countries, while a related recommendation supplements the convention by providing

more detailed guidelines on how it could be applied correctly. Recommendations can also be autonomous, i.e., not linked to any convention (ILO, 2015).

Thus, the international community considers it necessary to combine the efforts in applying standards to be used universally, and to implement them through concerted action at various levels, the right of PWDs to improve with the aid of appropriate medical and vocational adaptation, rehabilitation with a view to enjoying both social and occupational integration on equality, and decent employment with another population of the society (International Labor Office, 1998).

Adoption of international labour standards are designed to assist disabled persons in terminating their full social participation and integration into the activities of society and empower them economically and socially through productive employment (Akylov, 2014; ILO, 2015; O'reilly, 2007).

Furthermore, the provisions of international standards, promoting the right of PWDs in training and employment, was divided into two groups: those that address the principle of “equal opportunity”, and those that address the principal of “equal treatment” (Iuchi & Momm, 2011). To begin with equal opportunity, which intended to provide the same work and adequate income and opportunities for the PWDs as the general population, in particular, by providing the technical means and required support to adjust the environment with the special needs of the PWDs, and find jobs to advance in their careers, posed the process of VR (Iuchi & Momm, 2011).

On the other hand, ILO convention No. 159 recognized equal treatment as a guaranteed right for persons with disabilities, which meant that work and rehabilitation conditions should put the disabled person in an “equitable” position, compared with other populations, through the

creation of conditions at a worksite and finding a job to address special needs (ILO Convention No. 159, 1955; Iuchi & Momm, 2011).

A recent study by Al-Oweidi (2015) has defined the VR standards as a set of practical and organizational procedures, organizing the VR of the PWDs; those procedures are consistent with the recommendations and conventions issued by ILO and the Arab labor organization.

This shows a need to be explicit about exactly what is meant by the term VR standards, as they are a series of regulatory action or guidelines and rules, based principally on the conventions and recommendations made by the ILO and the COE, governing and regulating the process of the provision of VR services for PWDs.

#### **2.4 Benefits of Implementing International Standards**

Since the international standards have been issued in the form of international conventions and recommendations, they can undoubtedly contribute to the development of a comprehensive legal framework organized by the VR program (Diee, 2008). This is because implementing of the standards by any state can be led to promote opportunities for PWDs to obtain a decent and a productive work in conditions of freedom, equity, security and human dignity (O'reilly, 2007). The investment in vocational training also can be offered a better trained workforce and higher employment levels (Rubin & Roessler, 2008; Diee, 2008). This leads to achieve an economic growth and poverty reduction.

The most significant benefit of the international standards concerning VR is universality and flexibility of standards and takes into consideration the diversity of cultural and institutional, legal, and economic countries. Therefore, International standards represent the international consensus on how meeting the challenge of employment and the vocational issues at the global

level for PWDs as part of international law that can make further integration of the international community (O'reilly, 2007; ILO, 2015).

## **2.5 Standards of the International Labor Organization and the Council of Europe**

The international organizations work equally closely in creating and developing some of conventions and recommendations (Eide, 2014) that represent the standards of regulating the VR process and improve the quality of as well as the access to VR, especially for PWD (O'reilly, 2007). Furthermore, the organizations, particularly ILO, make efforts to establish the standards that are planned through employers and representatives of states to approve them by holding a conference yearly. As this study based on international standards concerning VR, there must be clarified how the emergence of the standards that issued by the ILO and the COE as follows:

### **2.5.1 International Labor Organization.**

The ILO was founded in 1919, and it is the oldest of the specialized agencies of the UN system. The main objective of the ILO is to promote the chances for women and men to gain decent and productive work, in terms of freedom, fairness, security, and human dignity. ILO has special attention on applying labor standards, principles, and rights of labor (ILO, 2014).

Particularly, the reviews of international standards that derived from legal instruments, conventions and recommendations confirms the importance of VR of PWDs in a systematic order according to successive processes (O'reilly, 2007).

According to article 2 of the Convention concerning Vocational rehabilitation and Employment of disabled persons (No.159), the standards are regularly reviewed through discussions and consultations, as well as through the holding of special conferences between the ILO (the Committee of Experts) and Member States that have ratified it (ILO, 2015). The

objective of the review is to ensure that standards are still relevant and effective in today's changes and challenges.

Therefore, the most important recommendations and conventions related to the international standards concerning VR of individuals with disabilities are ILO recommendation No. 99, which was adopted in 1955, the convention No. 159, and the recommendation No. 168, that were adopted in 1983, ratified by Spain in 1990 for the inclusion of PWDs (ILO, 2014; O'reilly, 2007).

Recommendation No. 99 was a fundamental basis for national legislation and practice with regard to vocational guidance, vocational training and the placement of PWDs (International Labour Conference, 2015). "Recommendation No. 99 contains the basic standards to which non-governmental organizations can refer in order to ascertain the internationally accepted components of VR and the means of applying them" (International Labour Office, 1998, p. 2).

The recommendation No. 99 consists of 10 parts, containing 42 articles, which include the following subjects: (a) definitions each VR and disabled person; (b) scope of VR; (c) principles and methods of vocational guidance, vocational training and placement of disabled persons; (d) administrative organization for VR; (e) methods of enabling disabled persons to make use of VR services; (f) co-operation between the bodies responsible for medical treatment and those responsible for VR; (g) methods of widening employment opportunities for PWD; (h) sheltered employment; (i) special provisions for disabled children and young persons; and (j) application of the principles of VR (ILO, Recommendation No. 99, 1955).

The United Nations General Assembly proclaimed the International Year of Disabled Persons (1981) under the theme "full Participation and equality". This leads the ILO to develop

international standards on VR through the adoption of Convention concerning Vocational rehabilitation and Employment of disabled persons (No.159) was adopted in 1983, and in fact, it supports recommendation No. 99.

Convention No. 159 consists of four parts, including 17 articles, which include the following subjects: (a) definitions each VR and disabled person and scope; (b) principles of VR and employment policies for disabled persons; (c) action at the national level for the development of VR and employment services for disabled persons; and (d) final provisions for all parts of convention (ILO, recommendation No. 159, 1983).

The ILO ratified the Convention concerning Vocational rehabilitation and Employment of Disabled Persons (No.168) in 1983, which specifies that vocational training and related services for persons with disabilities must be the same as those used by the general population whenever possible. Convention No. 168 is divided into nine parts, containing 42 articles, these sections contain the following subjects: (a) definitions and scope; (b) VR and employment opportunities; (c) community participation ; (d) VR in rural areas; (e) Training of staff; (f) the contribution of employers and workers organizations to the development of VR services; (g) the contribution of disabled persons and their organizations to the development of VR services; (h) VR under social security schemes; and (i) co-ordination between program concerning VR and program of social and economic development (ILO, Recommendation No. 168, 1983).

Generally, both recommendations issued in 1955 and 1983 contain directed States to develop national policies for the VR of disabled persons and the implementation of this policy and review periodically. They also include measures for all categories of disabilities and enhance access to persons with disabilities in self-employment. Moreover, Recommendation No. 99 is the first VR standards adopted by the ILO, which formed the basis of the principles of providing VR

services for PWDs. The both conventions (No. 159, No. 168) then was issued to complement and support the Recommendation No. 99.

### **2.5.2 Council of Europe.**

The COE is an intergovernmental organization founded in 1949, it has 47-member states. One of the main objectives of the COE is “PWDs must be able to lead full lives and make decisions freely for themselves and the emphasis should be on fuller inclusion within the community” (Council of Europe, 2015, para. 1).

In order to complement the ILO efforts and to integrate PWDs into workplace, the COE issued specific recommendations related to VR standards such as Recommendation No. R(92)6. The recommendation designed to assist disabled people to lead a life as far as possible in proportion to their ability and potential, which includes detailed sections on vocational guidance and training, employment, and social integration.

In the area of the VR, the Recommendation No. R(92)6 consists of three parts, containing 15 articles, which include the following subjects: (a) vocational assessment: “Persons with disabilities should have access to the assessment of their capacities”, (b) vocational guidance: “should determine the occupations most suited for PWDs, and enable them to choose an occupation according to their knowledge and abilities”, and (c) vocational training :”the aim of vocational training and rehabilitation should be to help PWDs to obtain or retain employment, to advance in their career and thereby to facilitate their integration or reintegration into society” (COE, Recommendation No. R(92)6, 1992).

On the basis of the principles set out in article 15 of the European Social Charter, and what is stated in the both conventions (No. 159, No. 168) of ILO, the COE adopted Resolution AP(95)3 concerning the vocational assessment of PWDs. The resolution consists of three parts,

containing 22 articles, which include the following subjects: (a) aims and scope : means the process of assessing the vocational capacities of persons together with job requirements, (b) principles: which it consists of ethical principles, assessment procedures and the rationale for their use, and multidisciplinary team of vocational assessment, and (c) table of major categories of vocational characteristics and factors that should be taken into account in the vocational assessment of PWDs and their jobs (COE, Resolution AP(95) 3, 1995).

Similarly, Recommendation Rec(2006)5 of the COE consists of 15 actions lines. The action line No. 5, specifically, is about employment, vocational guidance, and training PWDs. The recommendation has emphasized that the employment plays important role in promoting economic independence and social integration of PWDs. The Recommendation Rec(2006)5 has confirmed that the vocational assessment would be individually and objectively through identifying options regarding potential occupations for PWDs. This can be achieved by focusing on assessing abilities and linking them to specific work requirements. In addition, provision of vocational training service to PWDs is on the basis of the results of vocational assessment. The Recommendation Rec(2006)5 has stressed the importance of facilitating and encouragement of employers to hiring PWDs, especially through providing Job advertising, interviewing, and assessment (COE, 2006).

The European Council has issued some recommendations concerning VR international standards such as vocational assessment, vocational training, and employment as described above. However, the recommendations of the European Council are relevant to the conventions and recommendations of the ILO. Where both the Recommendation No. R(92)6 and Resolution AP(95)3 take into consideration what stated in in the conventions (No. 159, No. 168) of ILO.

## 2.6 Conceptualization of International Standards

Numerous international legislations, recommendations and conventions were initiated in the early 20th century. Since the 1940s, when the first significant recommendation was adopted by the ILO, there has been a growing number of recommendations and conventions established to rehabilitate individuals with disabilities professionally, and create job opportunities.

By adopting and confirming through international organizations, such as ILO, UN, and the EU, to protect the rights of individuals with disabilities as other people is becoming significant. Perhaps, the most important recommendations and conventions related to the international standards concerning VR of individuals with disabilities are Recommendations No. 99, No. 168, and Convention No. 159, issued between 1955-1983 by ILO, in addition to Recommendation No. R(92)6, resolution AP(95)3, and Recommendation No. r(92)6, adopted in 1992-1995 by the COE.

A review of the research related with VR standards have suggested to confirm the important existent standards that regulate the process of VR program to ensure a career in the future. For example, a study by Diee (2008) examined a degree of applying the international standards of the VR for PWDs in Kuwait State. One hundred and fourteen managers, trainers, and adults with disabilities who were recruited from two VR centers. Data were collected through building a model based on the recommendations and conventions issued by ILO and the Arab labor organization. The results indicated that the degree of applying the international standards of the VR for the disabled people in the two centers to be in a lower level.

In another study, Al-Oweidi (2015) evaluated the VR services provided to PWDs according to international standards in Jordan. Fifty-six managers and teachers from four VR centers participated in the study. The author used Al-Diee's scale. The findings indicated that the

applicability degree ranged between high and moderate levels, where the evaluation is high in center's philosophy, center's aims for VR and training standards. Furthermore, the evaluation was in an average level in assessment and diagnosis, vocational guidance and safety and security measures, interacting with local community, VR staff and procedures as well as general activities. The performance was low in shelter workshops and follow up domains.

However, these findings suggested that the model as proposed by the authors was based on the recommendations and conventions issued by ILO and the Arab labor organization. Nevertheless, the number of participants in both studies (Diee and Al-Oweidi) was small and the types of respondents were limited to managers and staff of VR centers. The both studies also did not participate any sample that include individuals with disabilities.

The United States Government Accountability Office (GAO) (2005) evaluated the 2003 fiscal year performance of the VR program; it utilized the data pertaining to the two of the Rehabilitation Services Administration (RSA) standards (Rakestraw, 2010). The latest standards and indicators for the VR program were published in 2000. RSA published two standards and performance indicators that were intended to measure the result performance of the VR program. The first standard evaluated the program's performance in assisting eligible individuals in obtaining or maintaining employment. The second standard was designed to confirm that the program provided equal access to services to people from minority background. In addition, RSA developed six performance indicators for the employment standard and one for the minority services standard. An individual state VR program must meet four of the six performance indicators in the employment standard as well as the one indicator in the minority service standard to be considered to have a satisfactory performance (U.S. Department of Education, 2009).

The GAO outcomes confirmed that 200,000 PWDs were working after receiving services, but reported that twice that many left the program without achieving an employment outcome. Compared to other studies, this ratio of one to three is inflated because the GAO counted all individuals who had applied. It does not consider those that are not eligible for services. Consistent with previous studies, this one demonstrated that clients with mental and psychosocial disabilities achieved the lowest rate of employment (GAO, 2005). Those who were deaf and those who were blind achieved the highest rate of employment. The recommendations from this particular report were that additional measures be developed to evaluate the performance of all individuals who remain in the program. It was suggested that performance measures be developed that addressed specific populations (Rakestraw, 2010).

Indeed, international standards related concerning VR for PWDs that guide this study is conceptualized as the following:

(a) Center's philosophy and goals: One of VR's missions is to assist PWDs in the acquisition or retention of employment (Maiden, 2014). This standard has supposed that providing VR services for PWDs is based on a public social responsibility of center, irrespective of the nature of their disability or gender. The basic philosophy of VR concentrates on PWD as a human being who deserves to live in dignity and respect in the community where he/she lives in. The goals of VR program lead to maximize PWDs' employment opportunities, enhance self-reliance in all aspects of life, economic self-sufficiency, independence, and inclusion in society (Al-Oweidi, 2015; COE, 2006; Diee, 2008; Dutta et al., 2008; ILO, 2016; Schoen, 2010; Steinman et al., 2013; Strand, 2015).

(b) Vocational assessment and determining eligibility: the second standard was designed to ensure that undertaking comprehensive assessment in all medical, social, psychological, and

educational aspects for PWDs. The vocational assessment can be effectively achieved through multidisciplinary team that comprised of the specialists from fields such as occupational therapy, rehabilitation medicine or psychiatry, psychology, social work, vocational guidance, education and rehabilitation (Al-Oweidi, 2015; COE, 1996; Diee, 2008; Dutta et al., 2008; ILO, 2016).

(c) Vocational guidance: the third standard aims to prepare an individualized plan for employment for PWD, in consultation with his family and in collaboration with multidisciplinary team (Diee, 2008). Vocational guidance and career counseling is the primary service provided to all applicants applying for VR services. VR counselors specialize in helping PWD acquire employment (Maiden, 2014). Vocational guidance consists of finding out all about the PWD from every point of view connected with employability. It also designed for giving PWD information on suitable work and/or training opportunities. The vocational guidance includes an advising of PWD about the most suitable vocational future (ILO, Recommendation No. 99, paragraph 4).

(d) Vocational training and retraining: The fourth standard refers to preparation of PWDs for jobs or "become settled in employment" (Al-Oweidi, 2015; COE, 1996; Diee, 2008; ILO, 2004). The methods of vocational training for normal people should apply in training of disabled people under the same conditions. Training should continue until the PWD has the necessary skill to work normally (ILO, Recommendation No. 159, paragraph 3). The appropriateness and delivery method of training are therefore the main factors to be taken into account in providing vocational training for PWDs (Razzak, Kiani, Chuadhry, & Shah, 2015).

(e) Placement of the disabled: Job placement or resettlement for PWDs is the ultimate goal of a VR program. This is usually achieved through selective placement. A selective placement service includes using all the normal services and provisions, adjusting them as necessary to the

known and carefully assessed needs of each PWD. The job placement comprises of some processes, which include knowing the worker, knowing the job, and matching the worker with the job (I.L.O. Recommendation No. 99, paragraphs 5, 6, 7, 8, 3, 12, 14).

(f) Sheltered employment: Sheltered employment programs are designed to assist individuals who, for any reason, are unable to work in a competitive working environment in their society. Provided for PWDs who because of the nature and severity of their disability cannot be made suitable for ordinary employment or are unlikely to be unfit for it for more than a very temporary period (I.L.O. Recommendation No. 99, paragraph 8).

(g) Follow-up: follow up of PWDs trainee's measures should be taken in order to ensure that they settle permanently in their training by a placement officer. This standard includes measuring acceptance or satisfaction of employees and employers with disabilities, and it involves collecting information whereby the VR services can be evaluated. Follow-up can be by written inquiry, interview, by telephone, or by any other convenient means (I.L.O. Recommendation No. 99, paragraph 3).

(i) VR staff: In order to improve VR programs, agencies must have qualified staff (Schwab et al., 1993), ensure that staff show courtesy toward consumers (Capella & Turner, 2004; Donnell, Lustig, & Strauser, 2004; O'Day, Wilson, Killeen, & Ficke, 2004). VR centers shall make training and availability of rehabilitation counselors and other suitably qualified staff responsible for the VR services (ILO VR and Employment Convention No. 159, article 9; ILO Convention No. 168, article, 5).

(j) Participation and cooperation with the community: it's necessary VR centers announce for VR services that will be provided for PWDs. VR services should be organized and operated with the fullest possible community participation, in particular with that of the representatives of

employers' workers' and disabled persons' organizations. Furthermore, VR centers would have conducted workshops, conferences and training courses aimed at to sensitize society on VR services of PWDs. They also may make promotion of volunteerism amongst the members of community, and they may establish relationships with the various organizations to be integrated or reintegrated of PWDs into the work life of the community (Al-Oweidi, 2015; COE, 1996; Diee, 2008; ILO VR and Employment Convention No. 168, article 3).

## **2.7 Obstacles in Application of International Standards concerning Vocational Rehabilitation**

Many studies have found that there are a number of obstacles that prevent the application of international standards of VR. In the study by Diee (2008) demonstrated some obstacles regarding application of VR standards, where 97.4% of respondents indicated to (non-availability of supporting budgetary). Of 77.2 indicated to (failure to give priority to employment of PWDs) as the obstacle in limiting applying VR standards. Larsson and Gard (2003) published a paper in "How can the rehabilitation planning process at the workplace be improved?" in Sweden in order to recognize of the views of the employers of the work rehabilitation planning process and how to enhance these processes by placing emphasis on cost and quality, through conducting interviews with 10 employers who have engaged in VR centers.

The results found that the importance of early identification of the actual needs of VR program when planning it. They also found VR could be developed through determining clear objectives for VR program in both routine work and techniques to improve job training for PWDs. The findings indicated that there is a need to draw attention to social and geographical settings during the rehabilitation process, there are also financial and organizational obstacles limiting VR process and this requires the recognition and elimination of obstacles and with due

attention to the development of standards on best practice for process of planning the VR programs.

Through reviewing the related literature and various conventions and recommendations, such as (Al-Oweidi, 2015; COE, 1996; Diee, 2008; ILO Vocational Rehabilitation and Employment Convention No. 168; No. 159; Larsson & Gard, 2003), the main obstacles limited the applying of the VR standards include the following:

(1) Attitudes concerning PWDs: in fact, there is no doubt that negative attitudes and prejudices persist concerning the capacity to work with PWDs. Negative attitudes will affect responses of community people to respond to appeals of international organizations in relation to applying of VR standards. Furthermore, negative prejudices that generate negative attitudes towards disabilities arising from myths and stereotypes about them would impede their participation in educational, social and professional fields (Rubin & Roessler, 2008). For example, Fraser et al. (2010) have found that the employers have a belief that PWDs could not do the work or were somehow less qualified. They also found that it is difficult to convince employers and directors of institutions to change their attitudes towards employment and work skills of PWDs.

(2) Financial and economic obstacles: Anderson (2007) demonstrated that PWDs are more likely to report costs being a barrier to disabilities in care compared to people without disabilities. Moreover, VR programs require large budgets for the cost of buildings, staff, transportation, activities, and equipment. Consequently, the global economic crisis on many countries has thus been affected on VR program and employment of PWD (Shearn, Beyer, & Felce, 2000). The economic and financial aspects are the first constraint that restricts the application of the standards of VR. That is because the failure to provide sufficient budget for

rehabilitation programs by the government to implement international standards. However, the application of VR standards requires a higher budget to cover costs of processing, services and the dimensions of VR services (Diee, 2008; Larsson & Gard, 2003). Therefore, Palmer, Groce, Mont, Nguyen, and Mitra (2015) conducted a series of focus group discussions of economic challenges associated with disability in Vietnam. The findings of this study have shown that the most of PWDs faced obstacles that prevent them from work because of the high economic cost of vocational training programs. The results of this study also have shown that a few disabled individuals get benefit from the public program and others attend to special VR programs.

(3) Obstacles related to legislation: development of legislative policies are governing the VR services to facilitate application of the standards, in the absence of these legislative policies would have a negative impact on the possible application of the standards. That because of these standards were derived from the international conventions and recommendations that have ratified by countries and organizations (Diee, 2008; ILO, 1989; O'rielly 2007). As reported by recommendation No. 168 (1983), it should combine the efforts of employers and PWDs to participate in the proposed legislation and the formulation of policies to organize VR services. Moreover, in his main study, Hernandez et al. (2008) shown the importance of disability employment organizations and disability advocates in suggesting legislations on VR services and work of PWDs. Despite there are various laws preventing a discrimination towards the employment of PWDs, the ratio of employing them is low. That is due to the erroneous beliefs about the inability of the disabled to work and failure to application of legislation requiring employers to employ PWDs in different jobs.

(4) Obstacles related to planning of VR program: many studies found that it was important to plan VR programs. Larsson and Gard (2003) focused on the importance of early

planning for VR programs, Koch (2001) reported that assistance with planning for employment was highly valued among VR consumers, and Kosciulek (2007) suggested that leadership and strategic planning by organizations has a direct effect on satisfaction of PWDs. In both studies of Jakobsson Bergroth, Schuldt, and Ekholm (2005) and Dee (2008) consider the lack of an annual development plan in the community that address VR programs is a major obstacle to the application of standards. This is because of those responsible for planning did not allocate within its annual work an plans targeted to improve and enhance the rehabilitation program, this results in the lack of sufficient budget allocation for this action due to the budget allocated based on development plans.

(5) Obstacles related to staff: The shortage of staff in VR program and/or unqualified staff, they have absolutely no idea about international standards, these factors led to prove difficult to apply international standards. Different studies have found that the low level of VR services, significantly, attributable to the lack of qualified and trained personnel and support staff (Beveridge & Fabian, 2007; Jackson, 1995; Schwab et al., 1993). In another major study, Jakobsson et al. (2005) found that the persons with disabilities who have received VR services through a multi professional rehabilitation team have a chance of being employed higher than those who were receiving traditional VR. Schwab et al. (1993) demonstrate that there are three elements to PWD satisfaction with agencies, which are as follows: good quality services, the center helps the PWD to obtain a decent job, qualified staff, and the involvement of consumers in decisions. This involvement is likely to meet the needs of PWDs to be treated with respect, to have appointments scheduled, and for staff or management to listen to their ideas and suggestions. Donnell et al. (2004) concluded that staff respect and courtesy might be an important aspect of VR services that can lead to positive rehabilitation outcomes. The majority

of participants in the study by O'Day et al. (2004) reported that staff were helpful, respectful, and listened to their ideas, while 77% stated that staff members listened to their ideas and suggestions and 60% stated that they were “very satisfied” with the staff’s efforts to help them reach their goal.

(6) Obstacles related to PWDs: Elsewhere, Dee (2008) stated that there are two factors related PWDs that perhaps limit applying of VR standard. The first one refers to existing a large number of PWDs, which require a high cost of providing the VR services. Cullinan and Gannon’s (2008) study revealed that the cost of providing VR services and caring for PWDs in the Ireland is high, and the cost differs by severity of disability and various family levels. This is due to the high cost of rehabilitation, health care, auxiliary assistance, transport and basic equipment services such as providing a wheelchair for a physically disabled person (Palmer et al., 2015). The second obstacle refers to negative self-perceptions of PWDs or how they perceive themselves whether be a positive or negative. Ryan and Voigt (2009) demonstrated that PWDs may face additional pressures not only as a result of their disability, but they are trying meet community's impossible standards.

## **2.8 Summary**

This chapter presented the main aspects of the international standards concerning VR for PWDs. The standards, that will be conceptualized the dimensions of questionnaire in this study, refers to a set of practical and organizational procedures, organizing the VR of the PWDs; those procedures are consistent with the recommendations and conventions issued by ILO and the COE. Perhaps, the most important international standards concerning VR of PWDs are recommendations No. 99, No. 168, and convention No. 159, issued between 1955-1983 by ILO, in addition to recommendation No. r(92)6, resolution AP(95)3, and recommendation No. r(92)6,

adopted in 1992-1995 by the COE. Furthermore, the standards include the center's philosophy and goals for VR, the assessment and determining eligibility, vocational guidance, vocational training; job placement; sheltered employment; follow up, safety and security measures, VR staff, and participation and cooperation with the community.

Throughout this chapter, a review of the research related with VR standards have suggested to confirm the important existent standards that regulate the process of VR program to ensure a career in the future (Abdelqader, 2003; Kosciulek, 2003; Larsson & Gard, 2003; Schwab, Smith & Dinitto, 1993). Similarly, it has been demonstrated that there is a need to develop and apply some international standards and enhance the outcome of employment with disability (Abusill, 1992; Al shawahin, 1989; Jackson, 1995; Kamal, 1993).

Hence, this study seeks to extend the current literature and investigate the range of applying international standards that will be derived from the related literature, COE, and ILO, at the VR associations in the Basque country. In addition, it will be exploring the obstacles faced by managers and consumers with disabilities in application of international standards concerning VR.

The next chapter discusses definitions of PWDs, models of disability, types of disability, and employment of PWDs.

## **Chapter 3. PEOPLE WITH DISABILITIES**

### **3.1 Introduction**

Historically, PWDs like physical, intellectual, and sensory impairments have been considered by various communities as having restricted and defective abilities (Derby, 2011), such as they killed or abandoned in the woods in ancient Greece (Vaughn, 2003). Society does not perceive PWDs as being equal, but rather perceives and treats them differently, excluding them from the mainstream like primary care given by the family at home or in hospitals (Elmaleh, 2000; Perdue, 2011).

The world has changed significantly towards PWDs; therefore, they have become more integrated into societies (Ramos, 2011), because of the development of legislations and the persistent efforts made by international agencies to prohibit any form of discrimination against them from all sides of life (Eide, 2014; ILO, 2016; O'reilly, 2007). For example, Since the 1955's there has been a growing number of policies established to protect the rights of PWDs by supporting their individual independence and encouraging their integration into society like recommendation of VR and employment of disabled that ratified by ILO (Elmaleh, 2000; James, 2011). Rubin and Roessler (2008) stated that the society's willingness to meet to the needs of PWDs was extremely specified by the perceived cause of the disability, the perceived responsibility of the disability, the prevailing economic conditions, the existing medical knowledge, and the prevailing sociocultural philosophy.

The conceptualization of the international standards concerning VR for PWDs are determined and discussed in Chapter 2 of this dissertation. This chapter provides in depth information regarding the literature review in the field of PWDs, beginning with a broad overview of the defining PWDs and disabilities. This is followed by a presenting deferent type of

disability. The next section introduces an overview of physical disability. The next section presents some models of disability. Finally, this chapter addresses the importance of employment to PWDs.

### **3.2 Defining of People with Disabilities**

PWDs are the world's largest minority group (United Nation, 2016), and they constitute of an estimated more than a billion people, or 15 percent of the world's population (WHO, 2016; ILO, 2016), including approximately 80 percent of working age (ILO, 2016). These numbers are increasing due to population growth, ageing, chronic diseases, as well as those injured by road traffic crashes, war, violence, mental impairments, malnutrition and so forth (Kara & Açikel, 2012). Indeed, within regions of conflict, this is particularly true, as the number of PWDs are increasing dramatically over a short period of time (Elizabeth, 2011; Peat & Jalovcic, 2009).

There are around 80 million Europeans with disabilities, where one in six people in the European Union (EU) has a disability that ranges from mild to severe. Moreover, their situation is more complex than other citizens due to the several difficulties are. Europeans with disabilities are often prevented from taking part fully in society and the economy because of environmental and attitudinal barriers. The rate of poverty for Europeans with disabilities is 70 % higher than the average partly due to limited access to employment.

According to Spanish Statistical Office (2018) (Instituto Nacional de Estadística) there are 8.5% of Spanish population have a disability (3.847.900 people). This data issued from the last Survey on Disability, Independence, and Dependency Situations of 2008. According to provisional data from the Spanish National Institute of Statistics (2014), there are 172,857 PWDs in the Basque country, which in relative terms is 8.1% of the total population. The

unemployment rate of disabled people in this area is 16%, the lowest in all of Spain (Ehlabe, 2017).

Fisher (2001) stated that there is no “typical” individual with a disability. PWDs come in every size and form, from every socioeconomic stratum, of all ages, representing every race and ethnic group. For example, disabilities are either present at birth or acquired later (Khoo, Tiun, & Lee, 2013). They are everywhere, nearly everybody who lives long enough, it is likely, would acquire a disability, due to loss of hearing or less-than-normal vision, even if no more serious impairment occurs (Schönherr, Groothoff, Mulder, & Eisma, 2005). Furthermore, each disabled person has special needs connected with the nature of his or her disability, it essential to be met to ensure the access of the individual to maximize productivity, for example, people with physical impairments might need additional attention given to the physical layout and accessibility of the workplace (Peat & Jalovic, 2009).

Article 1 of the UN Convention enunciates that “persons with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (p. 5). The definition in Article 1 moves away from the historically dominant medical model of disability towards the social model understanding of disability. The definition indicates to any person who has a mental or physical impairment that limits that individual's ability to perform daily living activities (Harder, 2009).

The ILO Code of Practice on Managing Disability in the Workplace (2016) defines a disabled person as “An individual whose prospects of securing, returning to, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognized physical, sensory, intellectual or mental impairment” (p. 5).

Therefore, PWDs have a disability as a result of injuries due to hereditary factors for congenital or acquired environmental, what cause them physical or mental functional limitations, and the shortcomings of health effects or social or psychological. These difficulties prevent a disabled person to acquire and do some work and intellectual or physical activities performed by normal individual with a sufficient degree of skill and success.

### **3.3 Defining of Disability**

Disability can be defined in several ways, which have prevalent implications for VR programs because estimates of the number and characteristics of PWDs differ extremely depending on how disability is defined (Featherston, 2011). Such as in the UN Convention (2006), disability is a concept about the consequence of the interface between individuals and obstacles, owing to attitudes and environments that impede the full and effective participation of PWDs with an equal opportunity in the society.

The concept of disability is permanently changing because it is defined based on the context for which it will be used; therefore, there is no agreed definition for disability (Harder, 2009). The definition of disability affects government policies, people's attitudes, legislation or laws, and eligibility criteria for several social programs (Jang, Wang, & Lin, 2014). For instance, the notion of disability characterizes the social role attributed to a person with deficiency, by which is deprived in comparison with others in the interaction or with social and cultural environment (Radu & Blue, 2015).

However, disability is a multidimensional and a complex concept that included within cultures that sets what is viewed to be various or a variation from what is normative (Patka, 2014). Thus, a universal definition of disability that fits all circumstances is, in fact, almost impossible (Barton, 2009). When attempting to understand of the diversity of forms and thoughts

of definitions, it is vital to take into consideration the structure, direction, and source of the concept and theoretical models (Patka, 2014).

Radu and Blue (2015) do not considered the disability as individual problem, but also, they deemed it as serious social problem, which requires the adoption of a social policy focused on qualitative education, VR rehabilitation and employment, and care and social integration for PWDs.

In a trying to find a global definition of disability, the World Health Organization (WHO) has created a universal classification of disability and health for policy makers called The International Classification of Functioning, Disability, and Health (ICF). The WHO believes that the ICF will help in developing policy, economic analysis, and research by allowing for consistent definition of disability across all levels of governments and researchers (World Health Organization, 2002). In the ICF the WHO defines disability as:

An umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. (p. 1)

The above definition of disability includes six main components: cognition, mobility, self-care, getting along, life activities, and participation. The World Health Organization (WHO; 2012) uses disability as a wide term, additionally, the ICF classification system composed of three dimensions: impairments, activity limitations, and participation restrictions. Impairment refers to the loss or “abnormality” of a body part or function and is conceptualized in a value-neutral manner. It also refers to a

problem in body function (Patka, 2014). According to ICF, “abnormality” refers only to “a significant variation from established statistical norms, i.e. as a deviation from a population mean within measured standard norms” (Oberst, 2007).

Moreover, the activity limitation indicates to the difficulties when an individual has executing a task or action and activity (Oberst, 2007). Participation restriction refers to a problems or difficulties experienced when person participate in life situations (Patka, 2014). WHO, similar to the UN in stating the disability is complex and involves the interaction between a person’s body and their environment (UN, 2007; WHO, 2012).

Furthermore, the ICF perceive these three dimensions occur within “contextual factors” like environmental or personal factors. Environmental factors include items such as social systems or services while personal factors include race, gender, or socioeconomic status characteristics. Then, disability found in a person by the interaction of the three domains: impairments in body functions/structures, activity limitation and participation restriction. The expression of disability may be influenced by the contextual factors (Oberst, 2007).

In the literature, disability was defined as “any disadvantage suffered by a person due to infirmity or disability that prevents her wholly or partially from satisfying tasks considered normal for it (depending on age, gender and various social and cultural factors” (Radu & Belu, 2015, p. 33). That is to say, a disability is considered a physical, intellectual or emotional impairment that may be a considerable obstacle to work or employment (Aziz, 2008; Neher, 2012; Maiden, 2014).

Disability is defined by the American Disability Amendments (ADA) Act of 2008 as “a physical or mental impairment that substantially limits one or more major life

activities” with major life activities including but not limited to: “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working” (Americans with Disabilities Act, 2008, p. 7). These impairments can have a temporary or life-long impact on one’s life. This legal definition demonstrates that people with physical disabilities are impacted in a negative way by their disability (Pharr, 2012).

For instance, the declaration of the handicapped, declared by the UN in 1975, considers that the concept “handicapped” means any person who is unable to secure all or part of individual and social needs of a normal life because of congenital deficiency or to other reasons of physical or mental disability (Radu & Belu, 2015). Gutestam (1991) identified a handicap is not something individuals are born with or acquire by accident or disease, but a product of the relationship between the disabled and their environment. Thus, the handicap develops synonymous with the concept of rejection, marginalization or exclusion of persons with deficiency or disability, while the term of disability describes the social role attributed to a person with deficiency, by which is disadvantaged in comparison with others in the interaction with them or with specific cultural and social environment (Radu & Belu, 2015).

Briefly, the term disability indicates a disorder or restrictions on an individual's body or ability or organic that measurable and can be described it by doctors objectively such as hand loss and Paraplegia. Disability appears as a result of genetic etiology (i.e. congenital or birth or Basic) or environmental causes (acquired or secondary).

### **3.4 Models of Disability**

Definitions of disability emerge from either individual models of disability or a combination of these models. Models are transformed into definitions or explanations that connects the conceptual model with the real world to generate an explanation in some way (Barton, & Barbara, 2009; Patka et al., 2014). For example, if a wheelchair is used as an indicator of the concept of disability, then it is probable to measure disability by asking about the use of wheelchairs. However, models are not equivalent to theories, as models do not require empirical or experimental data. Models are not based upon data collection, but they are representations that assist understanding of disability (Llewellyn & Hogan, 2000).

The four major models that have addressed the concept disability are the medical model, the social model, biopsychosocial model, and economic model of disability. Each model purports to capture what disablement really is (Martin, 2000).

#### **3.4.1 Medical Model.**

Martin (2000) stated the medical model came into prominence during the 19th century with the development of modern medicine, along with strengthening the role of doctor in society. Medical model considers a disability as attribute or deficit within a person-level, caused by disease, trauma, or health condition requiring professional intervention to treat or correct, and this model is focused on changing the disabled person (Pledger, 2003; Fleming et al., 2012).

Since many disabilities have medical origins, PWDs are expected to benefit from being supervised by the medical profession. Under this model, disability-related problems are considered to exist within the individual (The Center for an Accessible Society, 2017).

According to Bickenbach (1993), therefore, the most general belief about disability is that it

involves a defect, deficiency, dysfunction, abnormality, failure or medical problem located within an individual.

In the medical model, the disability management aims to "cure" or modify the individual and change behavior that would lead to an "almost-cure" or effective treatment (Disabled World, 2017). The medical model focuses on a healthy condition, sickness, injury or health problem of a person directly causing the individual's disability, which may affect the quality of life of the individual. Consequently, medical intervention may be required to identify and treat the disability, and/or to maintain or increase functioning (Eurostat, 2017).

### **3.4.2 Social Model.**

This model emerged in reaction to the medical model, asserts the trouble being within community (Llewellyn & Hogan, 2000), rather than the person -level attribute (Patka et al., 2014). It views disability as a socially specified phenomenon, and that individuals with disabilities are persecuted by societal views of normality (Llewellyn & Hogan, 2000). For example, public policies are addressed to foster the participation of persons with disabilities within society or community.

The social model of disability considers the issue of "disability" as a socially constructed problem and the subject of the full integration of individuals into society (Disabled World, 2017). Therefore, this model focuses on society rather than on the individual. It recognizes that the basic restrictions of physical disability may occur within the surroundings faced by PWDs rather than disability. The social model of disability recognizes that the fundamental restrictions of physical disability may be within the surroundings that PWDs encounter rather than the disability (Martin, 2000).

These restrictions may be physical or fear of other social attitudes and characteristics that are disproportionate to the diversity of the population's capacities (Eurostat, 2017). For example, social restrictions include inaccessible buildings, unusable transportation systems, institutionalized discrimination, and negative social attitudes. These restrictions are the real concerns of disability, not personal defects or deficiencies (Patka et al., 2014; Shakespeare & Watson, 2001). The removal of physical, material and institutional barriers will improve the lives of PWDs, giving them the same opportunities as others on an equitable basis. Given its logical conclusion, there will be no disability in a fully developed society (Michigan Disability Rights Coalition, 2017).

The model assumes that within the concept of disability there is a continuous relationship between people with physical disabilities and their social environments (Martin, 2000; Saleebey, 2012). However, the issue is both cultural and ideological, requiring wide-ranging individual and societal social changes. From this perspective, equal access for a person with disability (Disabled World, 2017).

Both medical and social models take a different view of the interaction between the health status of the individual and the environment in which the person lives. The medical model focus on the individual; the social one concentrate on barriers that were thrown up, intentionally or otherwise, by the environment (Eurostat, 2017).

### **3.4.3 Biopsychosocial Model.**

This model considers a disability as integrating the medical and social models where, disability is considered as the outcome of biological, personal, and social compulsion (Fleming et al., 2012) The interactions among these various factors results in disablement (Jette, 2006). However, it considers that disability stems from a combination of factors at the physical,

emotional and environmental levels. This approach or model takes the focus out of the individual and addresses issues that interact to affect an individual's ability to maintain a high level of health, well-being and work in the community (Smeltzer, 2007).

This approach is consistent with the revised definitions of the WHO on disability. It is recognized that disability is often caused by illness or injury and does not dismiss the importance of the impact of biological, emotional and environmental issues on health, well-being and employment in society (Smeltzer, 2007). It therefore calls for the medical and social models to be appropriate, but they are not enough alone to explain the complex nature of health.

#### **3.4.4 Economic Model.**

It defines a disability by a person's inability to participate in work. It also assesses the degree to which impairment affects an individual's productivity and the economic consequences for the individual, employer and the state. These consequences include loss of income for assistance the individual; low profit margins for the employer; and social welfare payments to the state (Michigan Disability Rights Coalition, 2017).

The economic model is used mainly by policy makers to assess the distribution of benefits to those who are unable to participate fully in the work. However, the preoccupation with productivity has been contradicted by the application of the medical model for the classification of disability to meet fraudulent benefit claims, which has led to confusion and lack of coordination in the disability policy (Michigan Disability Rights Coalition, 2017).

The economic model of disability changes the basic engine of the issue of rights and compliance with the market demand driver. The economic model will change this focus by changing how accessibility is viewed. Economic model realizes that any deficit is simply a different level of ability. Physical ability is just one set in the total capability set of the human

being. If we do take physical ability as the cornerstone of the push for greater accessibility, then we need to put it into context (Shanimon, Rateesh, Nair, & Com, 2014).

The main models that describe and interpret a disability include a medical and social model. While medical model viewed a disability as the inability disabled persons to participate in the activities and experiences of life due to the individual suffering from injury. However, by social model it seems that society is the cause of disability in the sense that it is society which prevent persons with disabilities from participating in events and activities and experiences of everyday life. Thus, the participation and integration of persons with disabilities in social life depends on the organization of society in terms of its functions towards disability also must eliminate all barriers to this integration such as negative trends.

### **3.5 Types of Disability**

Disabilities are varied in normal, and it is a natural part of human life and a person in community may experience disability in the period from his or her life. However, the main kinds contain physical disabilities, such as mobility and orthopedic impairments; intellectual disabilities, such as impairments in learning, understanding and concentrating; sensory disabilities, such as visual and hearing impairments; and psychosocial disabilities, such as impairments brought about by mood disorders, maladaptive behaviors and mental illnesses (ILO, 2008).

In fact, there are many categories of disability because of a problem of terminology in the field of disabilities, in addition to different theoretical models that explain disability. For example, Individuals with Disabilities Education Act (IDEA), disability has been classified into the following 13 categories. Hence, by reviewing the related literature that the most categories and descriptive labels used by a number of authors to describe disabilities as following:

Intellectual Disabilities are persons with an Intelligence Quotient (IQ) score much lower than average (i.e. 70-75 or below) that significantly limits their ability to adapt and carry out everyday life activities (e.g. self-care, socializing, and communicating) and the onset of the disability occurs before age 18 (Williams et al., 2012).

Autism Spectrum Disorder (ASD) is defined by impairments in three domains; social reciprocity, communication and behavior and interests. Diagnosis requires reduced functionality across all, or at least two of the three domains (Jacob et al., 2015).

The concept of sensory disability covers persons with visually, and hearing impaired. Visual impairment is the lack, deficiency, or decreased vision. For many people the word blind means total lack of vision, visual impairment but is divided into total blindness or amaurotic, blindness (Disability in Action, 2016). While hearing, impairment indicates to hearing loss above 90 decibels is generally considered deafness, which means that a hearing loss below 90 decibels is classified as a hearing impairment (IDEA, 2016).

The classification of disability is a split into similar groups with disabilities or vary based on the specific property. It helped to identify the nature and the amount and type of service which need for each category. Multiple categories and labels differ according to medical, educational and social criteria, in addition as appearing in different age, the nature of the reasons and on the basis of the external appearance of the senses. To illustrate, IDEA has been categorized the disability into 13 categories as mentioned above.

### **3.6 Physical Disabilities**

Having a physical disability has been identified as a considerable and difficult experience for both men and women (Holwerda, Groothoff, De Boer, Van Der Klink, & Brouwer, 2013; McKenzie, 2014). That because a physical disability generates numerous obstacles that face

PWDs by societal attitudes, for example, in employment (Livneh & Antonak, 2005; McKenzie, 2014).

Physical disabilities head to be more common than sensory or mental health disabilities and there are many definitions of it. Moreover, Chiu et al. (2005) defined it as the inability to accomplish activities in usual daily living without assistance. Hughes et al. (2003) defined it as existence a significant restriction in mobility and /or self-care and constitutes a chronic life strain.

According to Home (2009), people with physical disabilities are defined as "those who have an acquired or congenital physical and/or motor impairment; disabilities such as cerebral palsy, myelomeningocele (spine bifida), muscular dystrophy, arthritis, amputations, congenital anomalies, osteogenesis imperfect, arthrogyrosis and others..."(p.22). This definition indicates to some features of people with physical disabilities, such as paralysis, sensory disturbances, an unsteady gait, loss of, or inability to use of one or more limbs, and poor gross.

Physical disability resulting from a congenital condition (spina bifida) or an accident and injury (e.g. spinal cord injury, traumatic brain injury after the age of 22), an adult onset chronic condition (e.g. Multiple Sclerosis. MS) or the continued effects of a serious illness after the age of 22 that affect the gross motor e.g. walking (Adam, 2010), speech, vision, hearing, fine motor (e.g. grasping) activities, and/or cognitive functioning of individuals, affecting their ability to adapt and carry on everyday life activities independently. Note, some disabilities resulting from childhood accident or illness (Williams et al., 2012).

Physical disabilities are usually classified into two categories neurological disabilities, Muscular and Skeletal Impairments (Kiarie, 2014). For instance, neurological disabilities are caused by various injuries in the central nervous system (brain and spinal cord). These may be

simple or severe infections (Hu & Szente, 2009; Kiarie, 2014), and may be in specific locations or in large sites in the nervous system. Therefore, physical and behavioral manifestations of neurological impairments vary greatly from one case to another. It includes cerebral palsy, Epilepsy, Hydrocephalus, Poliomyelitis, spina bifida, and spinal cord injury (Bigge, Best, & Heller, 2001; Focht-New, Barol, Clements, & Milliken, 2008).

While Muscular and Skeletal Impairments are injuries in muscles and bones that affect an individual's ability to movement and mobility independently (Hallahan &Kauffman, 2006). Frequently, these problems occur in body parts (hands, or legs, or joints, or spine). It may be congenital or acquired. Myasthenia Gravis, Muscular Dystrophy, Rheumatism, Osteogenesis Imperfecta, Legg- Perthes Disease, and Vertebral Column Curvature (Fixsen, 1994; Rossetti, 2003; Mukuria & Korir, 2006; O'Shea, 2008; Kiarie, 2014).

Hence, physical disability is different cases may be congenital or acquired that limit the individual's ability to use his body to perform everyday functions independently. Physical disability can affect humans in any stage of life and require special habilitation programs.

### **3.7 Employment of People with Disabilities**

Work can be considered one of the most significant activities in people's life, both for individuals with disabilities and non-disabled colleagues (Freedman & Fesko, 1996; Huang et al., 2014; Sundstrom, 2008). ILO (2015) stressed that individuals with disabilities should be productive, and they should not exclude from the economic side in order to guarantee their right in work. Indeed, employment permits PWDs to become financially independent, set up social interaction skills, develop self-esteem, and become an active or contributing member of society (Dunn, Wewiorski, & Rogers, 2008; Hsu et al., 2015).

This view is supported by the EU (2006), which states, “Employment is a key element for the social inclusion and economic independence of all citizens of working age” (p. 1). In accordance with EU (2006), work is not only required to earn a living, but also to meet many of the fundamental human issues, including those related to the time structure and collective purpose, activity, and social contact (Jahoda, 1981), which helps to maintain mental health and well-being (Paul & Batinic, 2010). In addition, helping young people to gain early work experiences leads to better results VR (Cimera, Burgess, & Wiley, 2013). For example, the National Longitudinal Transition Study-2 dataset concluded that early work experiences predicting later employment success (Carter, Austin, & Trainor, 2011, 2012; Wehman et al., 2015).

Globally, the rights of PWDs to employment has become an important issue, through the transition from charity model to human rights model, such as United Nations Convention and European Convention on Human Rights (Khoo, 2013). Over time, a set of strategies have been provided for PWDs to secure employment. The main strategies include a sheltered workshop, supported employment, competitive employment, and quota schemes (Coutts & Riddell, 2012; Hsu et al., 2015; Novak, Rogan, & Patricia, 2002; Richards, 2012). To reach a better understanding of employment options for PWDs, various employment strategies should be discussed as following:

**(1) Sheltered Workshops:** in the 1960s and 1970s, sheltered workshops emerged as a means of providing persons with moderate to severe disabilities with the possibility of participating in meaningful activities (Kiernan, 2000; Williams, 2012). In the sheltered workshops groups of individuals with disabilities perform work, including tasks for sub-minimum wage alongside other PWDs (Williams et al., 2012). In sheltered employment, PWDs

work together in a segregated setting and are trained and supervised by individuals without disabilities (Kregel, 1999).

Mallender et al. (2015) conducted a review of the policy measures in place to encourage and support the employment of PWDs in the EU. They demonstrated that there are two main types of sheltered workshop. The first one is traditional sheltered workshops that primarily employ people with severe disabilities who cannot be integrated into the open labour market. The second type is transitional sheltered workshops that aim to transition people from sheltered into non-sheltered employment.

However, this is a segregated work setting that is specifically designed for persons with severe developmental disabilities including intellectual disability, multiple disabilities, and psychiatric (Hsu et al., 2015). In this regard, Eggleton, Robertson, Ryan, and Kober (1999) demonstrated that PWDs who attended a sheltered workshop did not receive the same benefits comparing to other options of work. They concluded that the environment of sheltered workshops was not a sufficient option. Although the sheltered workshops is significant employment option for moderate or severe disabled people, the most frequently reported effect in terms of integration PWDs in worksite was negative.

**(2) Supported Employment:** unlike sheltered workshops that provide PWDs with employment trainings and opportunities in a segregated environment (Williams et al., 2012). Initially, supported employment programs were used to assist people with learning difficulties, but expanded to include other disability groups such as those with long-term mental health situations (Coutts & Riddell, 2012).

Supported work is a highly effective means of assisting PWDs in sustainable paid work (Beyer & Robinson, 2009; Perkins, Farmer & Litchfield, 2009; Wistow & Schneider, 2007). It

also considers an extremely useful program to many individuals with severe disabilities to secure employment in integrated and competitive work settings (Wehman et al., 2014; Wehman, Inge, Revell, & Brooke, 2007).

The supported employment is a set of services intended to train and aid PWDs to obtain and maintain employment in the open labour market rather than a sheltered workshop (e.g. Job coaching). A job coach may help PWD to find a job, train for the job, and maintain employment through individual supports and accommodations (Parent, 2004). In other words, supported employment provides PWDs with vocational training and/or work opportunities in a non-sheltered and/or non-segregated environment (Turner, & Conkel, 2010; Hsu et al., 2015).

Inge, Wendy, Paul, Jennifer, and Pam (2000) describe one model project that used person-centered career plans, supported employment, and on-the job assistive technology assessment and training to assist 21 PWDs to become competitively employed. The results indicate that individuals with severe physical disabilities can maintain employment by combining supported employment and assistive technology within the workplace. Similarly, Wehman et al. (2014) investigate the effect of supported employment intervention on the employment findings of transition-age adults with developmental and intellectual disabilities. They found that supported employment is an effective service the outcomes of the VR program. However, the finding of these studies has shown that the supported employment is available strategy in outcomes of VR program and employment of PWDs rather than sheltered employment approach because it seeks to integrate PWDs into society.

**(3) Customized Employment:** it is a new employment strategy that emerged in the first time by the Office of Disability Employment Policy in 2001 (Callahan and Gold, 2002; Parent 2004). Customized Employment is defined by Callahan (2009) as a set of pre-employment

activities that result in a negotiated relationship between employers and job seekers that focuses on discrete workplace needs and specific productivity not defined by an existing job title.

It focuses firstly on a disabled person's needs, aspirations, talents and skills that form the basis of contact with potential employers and it emphasizes choice, strengths, and abilities of PWD (Griffin, Hammis, Geary, & Sullivan, 2008). In the model of customized employment, jobs are negotiated to best suit individuals, while individuals are placed in competitive conditions and receive support commensurate with their individual needs.

Supported and customized employment strategies lead to positive outcomes for PWDs in light of integration them in work society. That because is the wages and hours of work for PWDs are on average, as compared to individuals in sheltered employment (Conley 2003). According to a survey conducted by Conley (2003) in Maryland, where the participants customized and supported employment gain 3.5 times more than those working in the sheltered workshops. On the other hand, individuals with disabilities receive social benefits from customized and supported employment, since they make friends with their colleges without disabilities, obtain cultural benefits from obtaining a job which lead integrating them into the society (Ohtake & Chadsey 1999).

**(4) Quota Schemes:** According to EU (2006), “Compared to non-disabled persons, the employment and activity rates of disabled people are very low” (p, 1). PWDs experience higher rates of unemployment compared to non-disabled persons, physical and informational barriers to equal opportunities in the world of work. For example, according to the survey of the Spanish National Statistics Institute in Spain there are 3.847.900 of disabled people, 8.5 % of the whole population. Indeed, the big problem of Spanish disabled people related to the employment is

inactivity. More than 87.1% of disabled people, in labor age, do not have a job and do not find it.

In order to reduce high rates of unemployment-disabled people, several governments imposed hiring quotas with the possibility of severe penalties for breach. Many countries in Europe and other countries have adopted this model of quotas, and international employers must be aware of the different approaches taken in implementing it (Cuppige, 2011). For example, in the aftermath of the Second World War, quota schemes were used to encourage employers to take on disabled employees (Coutts & Riddell, 2012).

A quota is an obligation to employ a specific number or proportion of individuals of a particular group and is traditionally examined within the concept of affirmative action (Sargeant, Radevich-Katsaroumpa, & Innessi, 2017). The main objective of the quota is to stimulate demand for employment by obliging employers to employ a certain proportion or share of employees with disabilities.

The stipulated share usually ranges between 2% (such as Spain) and 7% (such as Italy) of the workforce (Cuppige, 2011). Generally, quotas are only valid above a certain work force threshold, which ranges between 15 (such as Italy) and 50 employees (e.g. Spain, Lithuania). In case the employers do not meet the commitments, usually they have to pay a fee to special funds (e.g. Austria, Czech Republic, Germany, Spain, and France).

The spectrum of sanctions ranges from almost completely lacking fines in Spain, via small sanctions in most countries (additional payroll tax of approximately 0.5%, e.g. Austria, Germany) to relatively high sanctions (1 to 4% of the payroll, France, Italy, Poland). At the very least sanctions need to be strengthened, but they must be accompanied with a change in attitude towards disability. Thus, employers often employ persons with disabilities only to fulfil legal

requirements. There is also a lack of penalties for those employers who fail to hire disabled people and perhaps it is too simple for employers to be exempted from the obligation, for example in difficult economic situations (Sargeant et al., 2017).

### **3.8 Summary**

This chapter has reviewed definitions of PWDs, disability, models of disability, types of disability, physical disability and employment of disabled persons. Thus, PWDs are ubiquitous and they are not a homogenous group. They faced various obstacles limit them to perform many activities in a daily life. The concept of disability is a broad umbrella covering many categories such as physical and sensory impairments, intellectual and learning disabilities and autism. However, physical disability that arises in operation of physical parts, use and move in an individual because of impairment in nerves, muscles and composition and operation activities of bones and joints. For example: polio, cerebral palsy, absence of a body part, effect of leprosy, muscular dystrophy, problem with joints and spinal cord, club feet, rickets, weakness produced due to problem related to bones are physical disability (Williams et al., 2012; Kiarie, 2014; Hsu et al., 2015; IDEA, 2016).

Four models explain a disability, including a medical, social, economic, and biopsychosocial model. Medical model indicates to inability for disabled persons to participate in the activities of life due to the individual suffering from injury. While social model shown that society is the cause of disability and seeks to integrate PWDs within the community (Pledger, 2003; Peterson & Rosenthal, 2005; Fleming et al., 2012). In conclusion, VR is needed so the independent living for PWDs can be a possibility. The disabled population should be trained for employment (Hanson, 1998). Employment is the means of gaining an income. PWDs want to be able to be gainfully employed in order to become financially independent (Perdue et al., 2011).

The next chapter addresses literature regarding evaluation of VR programs, and it analyze different studies regarding applying international standards concerning VR of PWDs.

## **Chapter 4. EVALUATION OF VOCATIONAL REHABILITATION PROGRAM**

### **4.1 Introduction**

Evaluating any program, including VR programs, is a valuable tool to measure an organization's performance, as it can help to address weaknesses and demonstrate success or progress (Thibodeau, 1991). For this reason, evaluation is immensely important in highlighting the impact and effectiveness of services provided as a means to promote staff development, modify policies, and develop programs (Posavac, 2015). Instead, evaluation of VR programs should also include consumer feedback and views on the services received (Capella, 2004; Russell, 1990).

Numerous studies have been conducted about the evaluation and effectiveness of VR program of PWDs. Most of these studies providing feedback from PWDs, VR managers and experts in identifying potential deficiencies in VR programs, VR services or recommendations to improve the effectiveness of the program. Nevertheless, few studies have investigated the extent of application of the VR standards (Al-Oweidi, 2015; Diee, 2008; U.S. Department of Education, 2009).

The perspectives on disability concept and employment of PWDs in general are discussed in Chapter 3 of this dissertation. The purpose of this chapter is to provide a review of the research literature that examines the VR and international standards of PWDs and to analyze the major studies related to the study questions. The following literature review, including a discussion of research studies in a following six relevant sub-topics: Literature on evaluating VR program based on effectiveness of VR services and process. It reviews the literature regarding evaluating VR program based on effectiveness of VR center and counselor. It analyzed literature on evaluating VR program based on employment outcomes. This chapter also highlights on literature regarding barriers of employment. Finally, this chapter shows the literature pertaining evaluation of VR

program based on application of VR standards. Significant findings of the research reviewed and their relevance to the proposed study are also provided.

#### **4.2 Literature on Evaluating VR Program based on Effectiveness of VR Services and Process**

In a study of the effectiveness of the VR program for consumers who are deaf and hard of hearing in the USA was conducted through secondary data analysis, Boutin (2006) found (a) increase the effectiveness of VR programs had greater increases in public assistance; (b) deaf and hard of hearing consumers who received college and university training as a VR service were more likely to become competitively employed and; (c) consumers who received rehabilitation technology more likely to become competitively employed. According to Strauser et al. (2010), young adult cancer survivors who received job search assistance and on the job support were four times more likely to be employed following such services.

In 1995, Jackson conducted 25 meetings with open-ended questions across the State of Texas develop a new simplified process for serving PWDs and reengineering the VR process. This investigation explored, in a qualitative analysis, the perceptions of 25 PWDs, vendors, and staff of the organization. The consumers with disabilities demanded better jobs, timely VR services, and the ability to make informed choices. The VR counselors requested to be trusted by VR administration and to be allowed to make decisions to further accelerate services for PWDs. The VR managers are required to be exempted from policies that do not bring value to the customer with disability. The VR services vendors want to be more closely involved in the planning efforts of VR centers.

Honeycutt, Bardos, and McLeod, (2015) conducted study to explore variation in eight VR agency practices with youth with disabilities in USA. They used case study approach involving

structured interviews with VR agency staff. The findings indicated the VR agencies have staff dedicated to serving PWDs with programs targeting them, often in conjunction with one or more society partners.

In order to analyze the process of establishing and developing a cooperative VR project, Ståhl, Andersén, Anderzén, and Larsson (2017) interviewed individually 28 and conducted 17 focus groups with officials and managers, and representatives from the steering group of the project within the project of the Swedish Social Insurance Agency and the Swedish Public Employment Service. They revealed many issues related to the design, organization and management of cooperative work, and issues that may have contributed to the project's failure to achieve its objectives. These issues included, for example, problems in the appointment of participants, the funding structure, and staffing problems at the managerial level.

In their study by Kosciulek, Prozonic, and Bell (1995) reviewed 78 case files of former disabled people to assess the congruence between vocational evaluation job recommendations, vocational skills training, and jobs obtained. The participants were 55 males and 23 females, aged from 18 to 53 years who had received VR and had been successfully rehabilitated in 1993, at USA. They reported that the rates of congruence between evaluation, training, and placement are from low to moderate. It seems that because of their employment in occupations not commensurate with professional training, whom they received.

For instance, a study by Beveridge & Fabian (2007) showed that disabled people who got jobs commensurate with their individual rehabilitation goals are more satisfied with their jobs and they have more opportunities for employment. They also showed that PWDs are provided with opportunity for in determining employment, involvement in setting objectives, and help achieve job satisfaction. There is a congruence between individual rehabilitation goals and jobs for PWDs.

Giesen and Hierholzer (2016) utilized FY 2011 RSA-911 data on 3,610 consumers with visual impairments to examine service patterns and evaluate the impact of VR services on competitive employment results. A relationship exists between service groupings and job-related services, evaluation, and training and supports.

The results also shown there is positive relationship between job placement, job search, on-the-job supports, on-the-job training, counseling and guidance, and rehabilitation technology and competitive employment. On the other hand, they found a negative relationship between job readiness training, augmentative skills training, and assessment and employment.

In a study of examining 107 of VR professionals' perceptions of importance, availability, and quality of career development services offered to transition youth with disabilities utilizing an on-line survey in the state of Michigan, Altantawy (2016) found that the most highly rated career development services in terms of importance were on the job training, job coaching, supported employment, job placement, and Job readiness training.

A comparison group of 5,427 individuals with diabetes whose VR cases were closed in Fiscal Year 2011 in the USA. They were divided into two groups based on their status of work; employed and unemployed groups. The objective of the study is to investigate the difference between the two groups upon the services they received as part of their VR programs. The findings explored the employed people with diabetes more likely than unemployed to receive deferent VR services, including vocational assessment, counseling and guidance, and on-the-job supports.

By contrast, Chiu et al. (2015) examined through ex post facto differential VR service patterns between two groups of consumers with diabetes (employed and unemployed), they found the unemployed group with diabetes was more likely to receive vocational training, job readiness, and job placement.

The standardized measurement instrument that was developed by Spijkers and Arling (2006) led to follow up an individual's progress through what they call the "Profile-Module". It was demonstrated that this tool adds a thematic and credible controlling system of the quality of the vocational training process.

Meade et al. (2006) carried out a survey study in the USA with 539 of individuals with spinal cord injury, in order to describe the types of services that they both want and receive; to determine if differences exist between the services received by employed and unemployed individuals. They were interested in discovering the utilization of VR services by people with physical disabilities. The main findings specified that the most frequently consumed service was vocational counseling concerning how to get a job, and the next most utilized service was vocational assessment.

Guy (2009) interviewed face-to-face thirteen individuals with disabilities using open-ended questionnaires who served by Navajo nation VR agencies to explore their lived experiences. The participants indicated that providing several VR services, including counseling and guidance, referral, adequate financial resources, placement assistance, follow-up services, and follow-along services lead to successful consumer outcomes in terms of VR. In addition, if the VR counselor helped them to understand their disability and how it might affect their future work and providing useful support to consumers lead to successful VR outcomes.

On the other hand, Guy (2009) found that the longer a consumer waited to determine her or his eligibility to receive VR services, the more likely it was that that consumer would not be successful in completing their rehabilitation plans.

In addition, Eugene and Miller (2010) surveyed 122 practitioners' perceptions of the importance of counseling in the VR process, and the findings indicate a significant difference in

counseling practitioners' perceptions scores and to non-counseling practitioners' scores regarding gender, ethnicity, education, licensure or certification status and years of service. They also found that vocational counseling could significantly improve the value of service delivery, increase successful employment outcomes and improve overall quality of life to PWDs.

This view was supported by Maiden et al. (2014) who found vocational guidance and career counseling is the main service delivered to all candidates applying for VR services. Nevertheless, Chen and Chan (2014) showed that vocational guidance and counseling are considered as significant role in enhancing youth with learning disabilities and facilitating finding job opportunities. This can be achieved through the significant role of counselors in the field career enhancement and addressing of challenges that may be facing PWDs' employment and addressing their needs.

In a study by Hollar (2008), the lowest successful closure rates of the VR program were for participants' mental illness, physical disabilities, and learning disabilities. The participants indicated to a need for additional services, several reasons are offered in the study that might account for unsuccessful closure, including the participants' need for additional services, family problems, transportation issues, lack of job availability, and discrimination.

In the same way, evaluation of VR program is difficult seen as predictive variables within the literature. For example, Young and Murphy (2002) suggest a method in evaluation VR process, and this method may contain active job seeking behavior, recurrence to vocational orientation. This is because seventy-four percent of the unemployed participants were unhappy with their employment status, and many people that were employed were not completely satisfied with their employment situation.

Several studies have highlighted the significance rehabilitation organizations, including VR and community rehabilitation providers, offering support to employers to enable them to hire PWDs (Boni-Saenz et al., 2006; Gilbride, Stensrud, Vandergoot, & Golden, 2003; Graffam, Shinkfield, Smith, & Polzin, 2002).

In 2003, Larsson and Gard published a paper in “How can the rehabilitation planning process at the workplace be improved?” in Sweden. The objective was to explore the views of the employers about work rehabilitation planning process and how to enhance these processes by placing emphasis on cost and quality. The study conducted by interviews with 10 employers who have engaged in VR centers. The researchers found that the importance of early identification of the actual needs of VR program through defining clear objectives, improving the job training in the worksite. There are also financial and organizational obstacles limiting VR process and this requires the recognition and elimination of obstacles and with due attention to the development of standards on best practice for process of planning the VR programs.

Mcdonnall (2017) in a recent scoping review of the literature about VR program evaluation of the relationship between VR professionals’ interactions with employers and those employers’ hiring decisions regarding individuals who are blind or visually impaired, Mcdonnall (2017) surveyed online 382 employers. The author found a strong relationship between VR contact/level of relationship with VR and having hired, intent to hire, and attitudes. This study highlighted on the importance of VR agencies developing relationships with employers in order to facilitate employing PWDs.

In a longitudinal study, Mathis and Roessler (2010) investigated the variables affecting the success of VR program. The study shown that the variables related with profession knowledge of different work; work experience and history and higher gross motor skills. Demographic variables,

according to Michon et al. (2005), such as gender, age of PWDs, and features of the environment, they may influence the VR process. Likewise, level of education was positively related to employment outcomes (Pi, 2006) and consumers' age (Vercillo, 2008; Martz & Xu, 2008).

Investigating of PWDs' characteristics who are more likely to receive vocational evaluation services is main part in evaluation VR program to examine the contribution of vocational evaluation to their employment outcomes.

For example, Homa (2004) conducted a study that is related with "the impact of vocational evaluation on outcomes in the VR services program". This study used the nationally representative database of the longitudinal study of the VR services. The researcher found that vocational evaluation recipients differ significantly from other consumers in type and severity of disability, age, gender, race/ethnicity, education, work experience, and occupational knowledge.

#### **4.3 Literature on Evaluating VR Program based on Effectiveness of VR Center and Counselor**

VR agencies play a significant role in the VR outcomes of individuals with disabilities (Steinman et al., 2013). Steinman et al. (2013) report many features of centers or agencies that provide several services to rehabilitate PWDs. These features include decision-making control, policies, and procedures. Decision-making is "the process of identifying and selecting from among possible solutions to a problem according to the demands of the situation" (Al-Tarawneh, 2012, p.1). Policies comprise, for example, the principles of action adopted by an association or person, while procedures comprise the method of providing VR services for the PWD.

In general, centers with the facilities and services to realize policies and procedures are more likely to have a greater effect on providing a successful VR service for PWDs than disorganized center management (Steinman et al., 2013).

However, other articles indicate that many centers are inefficient and ineffective in their service delivery for PWDs (Al-Oweidi, 2015; Dukmak, 2009). In fact, due to the lack of clear process systems for the implementation of action (Schwab et al., 1993), they do not involve consumers with disabilities in decision-making. In contrast, Strand (2015) considers that centers often provide job interviews for PWDs that are incompatible with the job description in order to promote the job opportunities they offer.

In addition to the role of VR centers to provide VR services for PWDs effectively, the findings of many studies have shown that VR counselors have a pivotal role in providing VR services to PWDs, and they represent a factor that can increase the outcome of PWDs relation to VR and employment.

In a qualitative study, Hein, Lustig, and Uruk (2005) examined consumer views about ways to improve the vocational counseling that provided for them by telephone interviews with 1,346 consumers. In their study, Hein et al. (2005) found that participants recommended that counselors should be more understanding of their clients' backgrounds and the difficulties associated with supporting a family. It also indicated that vocational training was an important factor in relation to positive customer outcomes.

Mitchell (2008) concluded that determining the functional capacity of a person with physical disability and the role physical limitations play in employment, are the main concern of the VR counselor. The identification of functional capacity assessment of its strengths and weaknesses will help determine its use in the field of VR.

Although there is no clear conclusion regarding the effects of counselor education level outcomes of VR programs, six studies have found that a master's degree in rehabilitation counseling positively impacts on VR outcomes, including consumer success (Cook & Bolton,

1992; Szymanski, 1991; Szymanski & Danek, 1992; Pi, 2006; Wheaton & Berven, 1994). For example, Pi (2006) indicated that there was a significant relationship between VR counselors' level of education and clients' successful employment or VR outcomes. As indicated by Rodriguez (2015), the availability of qualified counselors with experience with disabilities and the VR process is important to coordinate, provide, and manage a wide array of highly individualized consumer services.

#### **4.4 Literature on Evaluating VR Program based on Employment Outcomes**

Many studies demonstrated a correlation between positive employment outcomes and the successes of VR program (Capella & Andrew, 2004; Jo, Chen, & Kosciulek, 2010; Kosciulek, 2007; Kosciulek et al., 1997; Koch & Merz, 1995; Schwab et al., 1993). Kosciulek et al. (1997) confirmed that VR services contribute to empowering PWDs to obtain and maintain useful work and economic self-sufficiency. More specifically, 76% of respondents in their study agreed that VR services played a role in helping them to gain employment.

Chen et al. (2015) used Rehabilitation Service Administration data (RSA-911) to investigate the VR service patterns and factors related to the employment outcomes of individuals with Autism. The researchers showed that the employment outcomes significantly different among the three age groups, where youth with Autism with age 18 or below exited the VR program with the lowest employment rate compared with the participants with age 19–25 and the adults with age 26 and above.

They also found gender, education level, and race/ethnicity only had significant prediction to employment outcomes. However, this result is supported by Lawer et al. (2009) and Migliore Butterworth, and Zalewska (2014). They focused on the delivery of VR services as predictors of hire outcomes for person with autism (Lawer et al. 2009; Migliore et al., 2012). The results all

above recommended that job placement, job maintenance, and on-the-job support are critical factors for positive employment outcomes.

In a very similar study, Chiu et al. (2013) found that a total of 924 people with Multiple sclerosis indicated that the counseling and guidance, job placement assistance, on-the-job supports, maintenance services, and assistive technology services were significant predictors of positive employment outcomes. These studies reported that PWDs found that the provision different VR services lead to positive employment outcomes.

However, Jakobsson et al. (2005) proceeded to investigate differences in the effects on employment between consumers whose rehabilitation was coordinated in systematic multi professional rehabilitation group meetings and clients whose rehabilitation was coordinated in the conventional way. All persons in the study group were unemployed before the rehabilitation intervention. The groups were matched on an individual level based on records obtained from the national labour market board and the national social insurance board. Generally, the results found that the PWDs who have received VR services through a multi professional rehabilitation team have a chance of being employed higher than those who were receiving traditional VR services.

It was determined positive expectations may be promoted through multidisciplinary team vocational program that may affect the consumer's return to work (Oyeflaten, Hysing, & Eriksen, 2008). Härkäpää, Järvikoski, and Gould (2014) found that emphasizing the need to planning for the VR programs with its significant role in motivating individuals with disabilities to participate in rehabilitation program and enhance future career.

To determine the best predictors of an employment outcome, Martz and Xu (2008) used telephone survey with 13.75 consumers with disabilities to investigate their demographic variables (gender, ethnicity, and type of disability) and beliefs that they had about the VR services. They

found that the best predictor of employment for PWDs included a belief that they obtained services or training they needed. In addition, the possibility of hire for PWDs has increased if the vocational training services included all variables and factors for obtaining suitable employment. They also reported males were more likely to be employed than females among individuals with visual and “other” disabilities.

Throughout extracting data of 5,000 consumers with sensory/communicative, physical, and mental impairments from the United States Department of Education, Rehabilitation Service Administration Case Service Report (Form 911), Dutta et al. (2008) demonstrated that the VR services such as job placement, job search assistance, on-the-job support, and transportation were all considerably link with successful employment outcomes for the participants.

They reported that 56% of the people with physical disabilities were effectively employed after receiving VR services. This was supported by Wehman et al. (2014) and study of Austin & Lee (2014) who found that vocational training, vocational guidance and job support services are important predictors of employment outcomes persons with cerebral palsy.

Indeed, Lawer et al. (2009) indicated that the employment of PWDs, such as autism and intellectual disabilities, is highly associated with on-the-job supports. Likewise, Bell and Mino (2015) concluded that the PWDs or blind people who have trained within a systematic way, they were probably to be employed and to have higher gains than those who did not do.

Similarly, Kuoppala & Lamminpaa, (2008) have reported similar results specifying job placement services predicted positive hire outcomes. Beach (2009) also presented favorable outcomes for job placement services stating that it was the most significant service provided for successful case consumer. A study by Marini, Lee, Chan, Romero, and Chapin (2008) has been suggested that assistive technology, fundamental counseling, support services, and job placement

are very important variables to the return-to-work success. Similarly, Schoen (2010) found that the level of education attained, technology, and job placement assistance services impact on employment outcome as well.

Perdue (2011) used a survey based on a five point Likert-scale to assess the perception of 80 individuals with disabilities throughout Tennessee Rehabilitation Center (TRC). The outcomes revealed that there was no significant relationship between males and females in attaining employment after vocational training and in the effectiveness of the training. The researcher also reported that there is no difference in their experiences at the VR center between people born disabled with those that acquired a disability after birth.

Furthermore, to promote job opportunities for PWDs, the VR centers would provide training in the doing job interview that are congruent with the job description as a part from job placement skills during the interview 26 business owners, managers, and human resources professionals (Strand, 2015).

Likewise, for identification of elements that increases the probability of successful employment for disabled people, Jiang, Huebner, and Hills, (2013) examined 313 consumers who have got a job after their attending in the VR program. The results of this study indicated that the vital elements that include the providing VR services and the importance of the follow-up of PWDs after receiving a work.

Giesen and Hierholzer (2012) conducted a descriptive and logistic regression analyses using data from the Rehabilitation Services Administration on 2,282 consumers aged 22 or younger in order to determine which client and service factors predicted competitive employment. The finding found existence significant relationship between (Gender; race; education; disability;

the severity of visual impairment, receipt of Supplemental Security Income, earnings at the time of application) and to employment outcomes.

Similarly, Mamboleo et al. (2015) used data from the Rehabilitation Services Administration (RSA) Case Service Report (RSA-911) database to determine demographic and VR service predictors of employment outcomes for 4,281 people with chronic arthritis. They found younger and had higher level of education with arthritis and who received counseling and guidance, vocational training, job search, job placement, on-the-job support were more likely to attain competitive employment.

Murphy et al. (2006) conducted study to provide a preliminary evaluation of VR program effectiveness in assisting 232 people with brain injuries return to employment into three VR centers in UK, and the author concluded that that VR program is effective in helping them return to employment and other meaningful activities. This is because that 72% of the participants who participate in the VR program left it to start a meaningful activity with 41% of the clients securing paid, competitive employment.

#### **4.5 Literature regarding Barriers of Employment**

A considerable amount of literature has been published on barriers of employment which is a main goal and outcomes for VR program. These studies focused on barriers pertaining to environmental, demographic, contextual, psychosocial, economic and non-economic factors (McMordie, Barker & Paolo 1990; Wenden et al., 1998; Bolton et al., 2000; O'Connell, 2000; Sherer et al., 2002; Dawson, Levine, Schwartz, & Stuss, 2004; Bergmark, Westgren, & Asaba, 2011; Clayton et al., 2012; Drebing et al., 2012; Olmos & Ron, 2012; Radford et al., 2013; Forslund et al., 2014; Thomas et al., 2014). Additionally, PWDs confront many impediments in their daily life activities.

These obstacles may be deemed external or internal barriers (Fabian et al., 2009). External barriers may contain work opportunities, workplace supports and circumferential like transportation, accommodations (Fabian et al., 2009). For example, Migliore et al. (2008) found that socio economic variables doing a significant role in formulating VR program outcomes. This finding shown that another barrier to employment.

Furthermore, the negative attitudes of employers towards PWDs leads to the lack of employment opportunities for them. Employers may fear insufficient knowledge, bad movement, negative reactions from customers, multiple injuries at work, and difficulties of transportation or new investment required to modify physical work (Bualar, 2014; Jones & Latreille, 2010; Kulkarni & Valk, 2010).

McConnell (1986) found that “the most severe barriers facing the handicapped appear to be those based on either the perception of limitations that result from the disability or an assumption that the disability will engender additional cost to employers” (p.185). In contrast, Olson Cioffi, Yovanoff, and Mank (2001) found that the companies, in their study, identified as providing excellent employment opportunities for people with mental retardation. They, however, reported that the employers indicated there no differences in human resources costs for disabled workers from the general workforce, except for higher costs in training.

Internal barriers refer to characteristics of PWDs and their perception toward employment barriers, including gender, prior work history, and educational background (Fabian et al., 2009). For example, According to Smart (1993), the attitudes of PWDs towards themselves may influence their follow up of VR services and their involvement in VR program. These attitudes can be reduced through outlining them as a part of VR plan designed for PWDs towards decent employment.

For examining an attitudes and concepts of the employers towards the disabled people and the VR agencies in the Midwest and Southeast of USA, Gilbride, Stensrud et al. (2000) surveyed 200 employers by telephone. The survey questionnaire was piloted with 54 employers who recruited disabled people after receiving VR services. Generally, the results displayed that the employers were ready and pleased to employ the PWDs.

The results also shown that the employers do not care in hiring the people with intellectual disability, and they have good relations with consultants of the VR centers. On the other hand, the study found that the employers did not express a high degree of knowledge about the VR program. However, this study indicated that the effectiveness of the program must take into account the feedback from employers.

The work obstacles confronted by PWDs include the following: employer prejudice, poor work pasts, incorrect planning skills, lack of skills, undeveloped social skills, low self-esteem, physical and mental impairments, and idealistic employment goals, (Morgan, 2013; Maiden et al., 2014).

While a lot of individuals with disabilities seek to have an employment and would want to be part of the work force, they face several barriers to employment including inadequate vocational and life skills (Fabian et al., 2009), insufficient work supports (Kaye, Jans, & Jones, 2011), discrimination and attitudes (Wilson, Alston, Harley, & Mitchell, 2002), the declining economy and the lack of funding for job coaching and supported employment (Livermore & Goodman, 2009; Suarez-Balcazar et al., 2013), as well as low self-efficacy in job-seeking skills (Stodden & Mruzek, 2010).

Bualar (2014) conducted face-to-face interviews with 20 physically disabled women for examining barriers that affect their employment opportunities. The author found that the physically

disabled met various obstacles to employment, namely unfriendly built environments, personal limitations and attitudinal barriers. Such obstacles limited their employment opportunities.

It has been demonstrated that a most barriers that face PWDs, from point of view counselors and special education teachers, are some unrealistic expectations for outcomes of VR program, long-term support, lack of employment skills and interagency collaboration (Riesen Schultz, Morgan, & Kupferman, 2014). However, Agran, Cain, and Cavin (2002) measured 132 teachers and 132 VR counselors to define the range to which VR counselors share in transition planning. Their findings suggest that VR advisers consider they were not an integral part of transition group and were not provided with sufficient information on consumers.

Hence, many obstacles that influence on the individuals with disabilities' decision to work, it consist of adjusting to the disability (Anthony, 1994; Dreer et al., 2005; Zanskas , Lustig, & Ishitani, 2011; Hill & Fritz, 2011; Bhagchandani, 2014), attitudes toward various types of disabilities (Li & Moore, 1998; Graf, Marini, & Blankenship, 2009; Maia & Leite, 2012; Hill & Fritz, 2011; Reaume, 2014; Röing & Sanner, 2015), career barriers (Albert & Luzzo, 1999; Lent, Brown, & Hackett, 2000; Fitch, 2002; Fabian et al., 2009; Hill & Fritz, 2011; Ballou, Balogun, Gittens, Matsumoto, & Sanchez, 2015), and health admission and effects (Bolton, 1983; Li & Moore, 1998; Cunningham & Hadley, 2008; Jinks, Cotton, & Rylance, 2011; Gudlavalleti, 2014).

#### **4.6 Literature on Evaluation of VR Program based on Application of Vocational Rehabilitation Standards**

It is becoming increasingly difficult to ignore the VR of PWDs, as it is a basic philosophy that concentrates on the persons with disabilities as a human being who deserves to live with dignity and respect in the community where he/she lives in (Al- Zu'mut, 2005). Based on this philosophy, however, in other words, it becomes necessary to provide disabled persons with

various services and opportunities that can help them to work, socialize, live, and achieve their life objectives (Boutin, 2006; Guy, 2009; James, Terry & DiNitto, 1993; Jakobsson et al., 2005; Kosciulek, 2003).

Several studies have revealed that it does not just provide services for PWD, but also provides rehabilitation services to them effectively, that will be essential to carry out a range of actions and activities meeting with their needs. This requires different measures, the most important of which is the availability of specialized programs and centers for the delivery of VR for the disabled (Al-Oweidi, 2015; Diee, 2008; Dutta et al., 2008; ILO, 2016; Schoen, 2010; Steinman et al., 2013; Strand, 2015).

For example, in a large longitudinal study, Homa (2004) highlights the importance of measuring the effectiveness and evaluating the success of those centers, and/or the programs in the service of disabled persons, in order to provide feedback about the extent to which the expected objectives have been achieved, as well as the progress of the performance of individuals who offer them these services and upgrade it.

In addition, research has been examined a consumers' satisfaction and quality of VR services based on the US Rehabilitation Act of 1973 that states a client with disability's satisfaction as one program evaluation standard (Capella & Turner, 2004; Patterson & Leach, 1987). While one of the federal program evaluation standards of the Rehabilitation Act of 1973 confirmed on the consumer satisfaction, many literature concerning consumer satisfaction has proposed that this kind of information has grown in the level of significance because of the increased assurance on consumer in VR program (Lewis, Armstrong, Taylor, & Spain, 2005; Krogstadmo & Rundmo, 2008).

In their study in a VR agency in Texas, Schwab et al. (1993) examined consumer satisfaction as one aspect of the overall quality of services and found that PWD consumers were satisfied with the agency. The findings in this study also indicated VR services are a good quality, and the participants indicated that VR program helped them obtain a suitable job. Hein et al. (2005) investigated the perspectives of disabled consumers about ways in which the VR services they had received could be improved. They found that vocational training was an important factor in relation to positive customer outcomes.

Shahid, Naheed, Tariq, and Javed, (2015) surveyed 25 teachers and 50 PWDs to evaluate VR program in Pakistan and to examine the performance of teacher regarding the program. The result showed that teachers actively perform to motivate and encourage the students thereby creating interest regarding vocational training among them. Moreover, PWDs are getting equal opportunities of vocational training as normal children have.

The study by Kosciulek (2003) evaluated the consumers' satisfaction level using sending mail survey to the (223) participants aged between 18 and 56 who received the services in the VR agency in Midwestern State of USA. There were no large differences between males and females were found in evaluating the dimensions of the satisfaction, and the consumers were satisfied with the services provided by the VR agency in terms of time, reception, training, choosing the disabled consumer and assigning him/ her for the suitable job and the vocational services provided after the rehabilitation process. Hence, Kosciulek (2003) demonstrates that at least two dimensions are involved when assessing the construct of consumer satisfaction using this scale. The first dimension refers to satisfaction with case management versus satisfaction with employment, while the second dimension refers to satisfaction with consumer choice versus satisfaction with customer service.

Although several studies have indicated that the importance of providing VR for PWD (Bell & Mino, 2015; Spijkers & Arling, 2006) within standardized services to achieve the best outcomes (Beveridge & Fabian, 2007; Larsson & Gard, 2003), little attention has been paid to discuss or address the issue of implementing international standards related to VR program.

Recently, for example, researchers have shown an increased interest in development of VR centers that needs to be explicitly built on the normative grounding, which is consistent, and internationally agreed upon. Also, based on the realization that the development of these centers and program can only be achieved through the existence of international standards, which constitute of the basis for VR of PWD (Abdelqader, 2003; Al-Oweidi, 2015; Diee, 2008; Finger et al., 2012; Larsson & Gard, 2003; Kosciulek, 2003; Schwab et al., 1993). Similarly, it has been demonstrated that there is a need for the development and application of some international standards to enhance the outcome of employment for the disabled (Al shawahin, 1989; Abusill, 1992; Jackson, 1995; Kamal, 1993).

For example, a study by Diee (2008) examined a degree of applying the international standards of the VR for PWDs in Kuwait State. One hundred and fourteen managers, trainers, and adults with disabilities who were recruited from two VR centers. Data were collected through building a model based on the recommendations and conventions issued by ILO and the Arab labor organization. The results indicated that the degree of applying the international standards of the VR for the disabled people in the two centers to be in a lower level.

In another study, Al-Oweidi (2015) evaluated the VR services provided to PWDs according to international standards in Jordan. Fifty-six managers and teachers from four VR centers participated in the study. The author used Al-Diee's scale. The findings indicated that the applicability degree ranged between high and moderate levels, where the evaluation is high in

center's philosophy, center's aims for VR and training standards. Furthermore, the evaluation was in an average level in assessment and diagnosis, vocational guidance and safety and security measures, interacting with local community, VR staff and procedures as well as general activities. The performance was low in shelter workshops and follow up domains.

However, these findings suggested that the model as proposed by the authors was based on the recommendations and conventions issued by ILO and the Arab labor organization. Nevertheless, the number of participants in both studies (Diece and Al-Oweidi) was small and the types of respondents were limited to managers and staff of VR centers. The both studies also did not participate any sample that include individuals with disabilities.

The United States Government Accountability Office (GAO) (2005) evaluated the 2003 fiscal year performance of the VR program; it utilized the data pertaining to the two of the Rehabilitation Services Administration (RSA) standards (Rakestraw, 2010). The latest standards and indicators for the VR program were published in 2000. RSA published two standards and performance indicators that were intended to measure the result performance of the VR program.

The first standard evaluated the program's performance in assisting eligible individuals in obtaining or maintaining employment. The second standard was designed to confirm that the program provided equal access to services to people from minority background. In addition, RSA developed six performance indicators for the employment standard and one for the minority services standard. An individual state VR program must meet four of the six performance indicators in the employment standard as well as the one indicator in the minority service standard to be considered to have a satisfactory performance (U.S. Department of Education, 2009).

The GAO outcomes confirmed that 200,000 PWDs were working after receiving services, but reported that twice that many left the program without achieving an employment outcome.

Compared to other studies, this ratio of one to three is inflated because the GAO counted all individuals who had applied. It does not consider those that are not eligible for services. Consistent with previous studies, this one demonstrated that clients with mental and psychosocial disabilities achieved the lowest rate of employment (GAO, 2005). Those who were deaf and those who were blind achieved the highest rate of employment. The recommendations from this particular report were that additional measures be developed to evaluate the performance of all individuals who remain in the program. It was suggested that performance measures be developed that addressed specific populations (Rakestraw, 2010).

#### **4.7 Summary**

This literature review has examined research in the areas of evaluation and measurement of effectiveness the VR services for PWD, obstacles that limit to apply international standards, and application of VR standards. Many literatures have stated the importance of implementation the VR standards during providing VR services for PWD (Schwab, Smith & Dinitto, 1993; Abdelqader, 2003; Kosciulek, 2003; Larsson & Gard, 2003; Diee, 2008; ILO, 2015).

Correspondingly, a need for developing and applying some international standards to foster future of PWD after receiving various services (Al shawahin, 1989; Abusill, 1992; Kamal, 1993; Jackson, 1995; U.S. Department of Education, 2009; Al-Oweidi, 2015). Nevertheless, there has been limited research in this area.

In the area of evaluation and measurement of effectiveness the VR services, there have been several studies that have found that the VR services are of good quality (Alsrtawe et al.,1996; Steinman et al., 2013), and the participants indicated that such programs helped them obtain a suitable job and they have chance of being employed higher than those who were received

traditional VR when planning to provide these services (James, Terry, & DiNitto, 1993; Kosciulek, 2003; Jakobsson et al., 2005; Boutin, 2006).

Similarly, several studies have produced the association between VR services and employment outcomes of PWDs and efficiency of centers in providing VR services (Dutta et al., 2008; Schoen, 2010 Steinman et al., 2013; Strand, 2015), particularly when the counsellors provided a supports to consumers (Lawer et al., 2009), because of vocational training suitable to the nature of the disability (Abusill, 1992), qualified staff (Schwab, Smith, & DiNitto 1993), VR program contribute in changing the view and attitudes of society toward the PWD (Alshamry,1996), satisfaction of consumers (Kosciulek, 2003; (Hein, Lustig, & Uruk, 2005).

In addition, the importance of early planning for the VR program (Larsson and Gard,2003), receiving of VR services through multi-professional group (Jakobsson et al., 2005), educational attainment and disability category (Beveridge & Fabian, 2007), physical restoration, substantial counseling, and assistive technology services (Dutta et al., 2008), gender of PWD that males were more likely to be employed than females(Martz and Xu, 2008), counselors provided useful support to consumers (Guy et al.,2009), association decision-making control over policies and procedures (Steinman et al., 2013), level of education attained, technology and job placement (Schoen, 2010), age of PWD (Wehman et al., 2014), and providing training in the doing job interview (Strand, 2015).

In contrast, many studies have indicated to a variety of factors have led to inefficiency of centers in providing VR services or lack of services for instance, lack of qualified staff (Al shawahen, 1989; Kamal, 1993; Alshamry, 1996), lack of suitable building for VR program (Kamal, 1993), the complexity of the procedures and low financial support (Tartory, 1995), lack

and low of congruence between evaluation, training, and placement (Kosciulek, Prozonic, & Bell 1995).

Furthermore, VR program had not achieved for consumers a better job or higher income (Kaufmann et al., 1995) employment in occupations not commensurate with professional training, whom they received (Kosciulek et al., 1995), the lack of clear process systems for the implementation of the action (Alshamry, 1996), financial and organizational obstacles (Larsson & Gard, 2003), and not planning for the VR program (Härkäpää, Järvikoski, & Gould, 2014).

However, researchers discuss at least two general barriers' domains that limit from employment of PWD and application of standards these obstacles may be considered external or internal barriers (Migliore & Butterworth, 2008; Fabian et al., 2009; Kaye et al., 2011; Suarez et al., 2013). As an illustration, external barriers may contain discrimination and attitudes (Wilson, Alston, Harley, & Mitchell, 2002), lack of buildings and unqualified staff (Abdelqader, 2003), work opportunities, workplace supports and circumferential like transportation, accommodations (Fabian et al., 2009), also financial and organizational obstacles (Larsson and Gard, 2003), environmental variables (Murphy et al., 2003), socio economic variables (Migliore & Butterworth, 2008), policies (Featherston, 2011) insufficient work supports (Kaye, Jans, & Jones, 2011), economic factors (Drebing et al., 2012), the lack of funding (Livermore & Goodman, 2009; Suarez et al., 2013), an unrealistic expectations for results of VR (Riesen et al., 2014).

Internal barriers include attitudes of persons with disabilities towards themselves (Smart, 1993), work experience and tasks, self-perceptions, and attitudes about job (Fabian et al., 2009), as well as low self-efficacy in job-seeking skills (Stodden & Mruzek, 2010), undeveloped social skills and low self-esteem (Morgan, 2013; Maiden et al., 2014), in addition the adjusting to the disability (Dreer et al., 2005; Zanskas, 2010; Bhagchandani et al., 2014).

Nevertheless, few studies have investigated the extent of application of the VR standards (Al-Oweidi, 2015; Diee, 2008; U.S. Department of Education, 2009). But, up to now, no researches has been found surveying the extent of application of the VR standards in the Basque region. While researchers discuss issues like U.S. Government Accountability Office (GAO) standards (U.S. Department of Education, 2009), and Arab labors criteria (Al-Oweidi, 2015; Diee, 2008), we fill this gap by extending this study to look for international standards derived by ILO, and additionally, by the COE.

Hence, this study seeks to extend the current literature and investigate the range of applying international standards that will be derived from the related literature, COE, and ILO, at the VR associations in the Basque country. In addition, it will be exploring the obstacles faced by managers and consumers with disabilities in application of international standards concerning VR.

The next Chapter discusses the research methodology that was conducted to empirically examine the theoretical framework and test the research hypotheses.



## Chapter 5. METHOD

### 5.1 Introduction

The first part of this study has outlined a literature review and theoretical foundations about the vocational rehabilitation (chapter 1), international standards (chapter 2), and PWDs (chapter 3). The first part also has established some significant findings of the research reviewed and their relevance to the proposed study from which the several questions were developed (chapter 4). Despite the importance of providing VR services for disabled people in the light of the standards that govern this process, few researchers have yet examined the extent of application of international VR standards in related centers. However, up to now, there are no researchers have been found that surveyed on the extent of application of VR standards in the Basque region.

Moreover, the purpose of this study is to investigate the range of applying the international standards at the VR centers in the Basque country. It also aims to describe the current situation with regard to VR services provided for consumers with disabilities to explore their perspectives about these services. This study also aimed to create a valid and reliable instrument to measure PWDs' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country. This study was designed to answer the following research questions:

Q1: What is the current situation with regards to the services of vocational rehabilitation provided for persons with disabilities at vocational rehabilitation centers in the Basque country?

Q2: What are the opinions of the PWDs about the vocational rehabilitation services that is provided to them?

Q3: What is the application degree of international vocational rehabilitation standards in the vocational rehabilitation centers of the Basque country from the perspective of PWDs and managers?

Q4: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, status of disability, and work status of PWDs?

Q5: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, and experience work of managers?

Q6: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to the type of respondents (PWDs and managers)?

This chapter discuss the following sections: research design, rationales for using design, sample design, interviews with PWDs and managers, instrument development, data collection procedures, data analysis procedures, and ethical considerations.

## **5.2 Research Design**

Research design is an essential element of the research process to conduct any research project (Picardi, 2014). A research design refers to the overall structure that emphasize the data obtained from the research is able effectively to address the research problem (De Vaus, 2001; Paschke, 2009). In order to answer the above-mentioned questions, we conducted this study following a descriptive design that is based upon the survey methods and inferential statistical procedures.

A survey is primarily a quantitative approach in which the investigator administers a questionnaire to a sample to describe their characteristics (i.e. attitudes, opinions, behaviors, and experiences) of the population (Gay & Airasian, 2003; Onwuegbuzie & Collins, 2007; Gay, Mills, & Airasian, 2009). This study is descriptive in nature and follows the guidelines of a cross-sectional survey design as defined by Grinnell (2005). According to Creswell (2014), in a cross-sectional survey design, “the researcher collects data at one point in time” (p.377).

This study included two phases for collecting data (see Figure 1). The first phase includes two stages: (1) an interview was implemented with VR managers; and (2) an interview questionnaire was administered to PWDs. The second phase of this study included developing a valid and reliable instrument. After presenting rationale of utilizing this design, we will explain these phases of the research design in the following subsections.

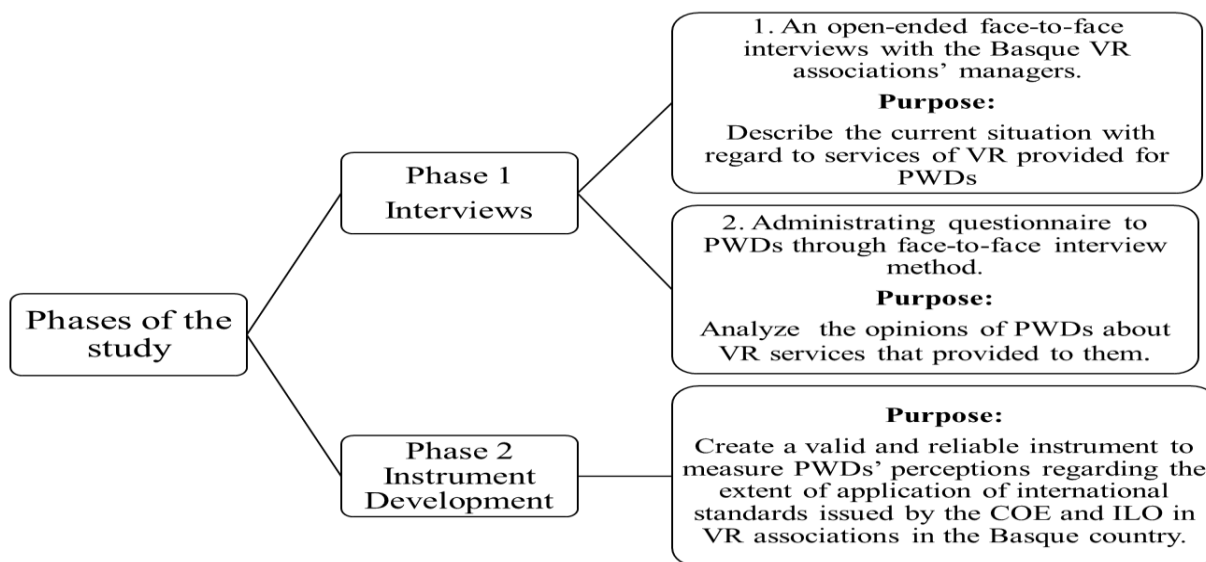


Figure 1. The phases of the study

### 5.3 Rationales for Using the Descriptive Design

The descriptive design which is based upon the survey methods and inferential statistical procedures was suitable, as this study attempted to determine “what is” the current situation regarding services of VR provided for PWDs at VR centers in the Basque country through interviews phase. It was also used to develop an instrument to measure implementation of international standards within these associations to collect data through a questionnaire. The inferential procedures allowed for generalizations to be made from the sample population to the larger population (Gall et al., 1996). According to Slavin (1992), descriptive study describes a certain phenomenon as it exists.

Further, surveys are a tool often used in a descriptive research. A descriptive research offers very valued data, as it is a means to describe the characteristics of an existing phenomenon systematically, precisely, and factually (Isaac & Michael, 1997; Akhidenor, 2007). Surveys allow for the collection of a significant amount of data in the shortest time possible. This method therefore offers the most cost-effective way to collect a large amount of data from a large number of participants while maintaining the anonymity of participants.

Moreover, the reason behind developing a new instrument is the lack of guiding theory and instruments (Creswell, 1999; Creswell et al., 2004; Ivankova et al., 2006; Zhou, 2014), within the field of VR of PWDs research in international standards. This is because no scales were available to measure the phenomenon under study. The design provided an opportunity to begin the study with a description of the current situation of VR services that providing for PWDs in the Basque country, thus in the interviews results at the first phase helped to develop the instrument through providing a confirmatory support of the conceptual and operational definitions of the instrument content. Thus, in the study, the interviews phase was specifically

useful to provide the description and analysis of Basque managers' and PWDs perceptions about VR services.

Taken together, descriptive design which is based upon the survey methods was best suited for the research problem of the study. The initial interviews findings assisted in building up the instrument for the follow-up survey. The follow-up survey provided a comprehensive picture of the adoption international standards in VR associations in the Basque Region.

#### **5.4 Phase One**

This phase includes two stages. The first one is interviews with VR managers and the second stage is interviews with PWDs.

##### **5.4.1 First Stage. Interviews with Managers**

The first stage included open-ended face-to-face interviews with the Basque VR associations' managers. The purpose of the first stage was to describe the current situation with regard to services of VR provided for PWDs. Within this stage, there was specific focus on the VR services that provided for PWDs, the objectives of VR center, registration conditions, and current work procedure.

###### **5.4.1.1 Sample**

We consulted different experts for identifying possible VR associations (e.g. professionals and academics). We obtained a list of the VR associations from the federation of PWDs in the Basque (Fekoor) that presents the association's contacts means. Twenty associations were contacted by e-mail or phone; the responses of five associations that declined to participate did so because they did not meet the required criteria rather than they do not have VR services. Two associations have not responded despite repeated attempts to contact them.

Further, another two associations refused to participate in this research. Fortunately, eleven agreed to collaborate. Eleven associations determined the pool of potential participants from the inclusion criteria, the association managers were emailed information about the research study (see Appendix A) were instructed in the letter to contact the Ph.D. student researcher to indicate their willingness to participate in the study. Nevertheless, after associations were selected, 11 interviews were conducted with the managers in the selected associations. More details about the description of the sample are reported later in the chapter of results.

The participants in this stage were 11 managers of Basque VR associations. In order to better understand the experiences of the managers, it was necessary to select them based on the following criteria: (a) are currently employing as a VR manager; and (b) has been at least two years' experience as a manager for VR association (c) both male or female participants were included; and (d) no age limit was imposed.

#### ***5.4.1.2 Data collection procedures***

A questionnaire was developed to collect data for this study after reviewing the VR literature (Eugene, 2010; Guy, 2009; Hein et al., 2005) and in consultation with local professionals and academic in this field. We sought to understand managers' experiences and opinions using interviews to generate rich and valuable data. Before the interviews were conducted, we have formed questions that consist of open-ended questions for managers (e.g., question one where managers are asked to speak generally about the goals, mission and vision of the center).

The questions, however, were assigned to be consistent with the managers' role in answering this kind of questions. The interview consisted of 15 open ended (see Appendix B) questions and they addressed goals, mission and vision of the VR center, admission

requirements, and ways of providing VR services. Four demographic items of managers are included in the interview: gender, age, level of education, and work experience. In addition, the questionnaire included some general questions about the center such as Entity to which the center belongs and the founding date of the center.

After associations were selected and questions of interviews were prepared, interviews scheduled with each participant preferably in their associations. All the participant's interviews took place in the time frame of October 01, 2015 to May 02, 2016 during working daytime hours of the associations by the researcher. For this purpose, at the commencement of each face-to-face interview, the participant was greeted by the researcher and offered a comfortable place to sit. The interview initiated with showing courtesy as well as an arriving on time, respectfully greeting the interviewee and presenting myself.

Consequently, the interview begun with specification of the researcher's role in the study, being the researcher to collect and analyze data for this study as a partial fulfillment of a PhD of Psychology degree from the University of Deusto. Particularly, it was presented with an introduction and explanation of the purpose of the interview and the study to indicate how long the interview usually takes (approximately one hour) and ask them if they have any questions. Indeed, the researcher highlighted at that time that every participants' response would be kept confidential. In brief, the target individual was introduced with an information sheet about the research, informed consent to be signed, and probing questions.

#### **5.4.2 Second Stage. Interviews Questionnaire**

The second stage involves administrating questionnaire to PWDs through face-to-face interview method. The purpose of the second stage was to describe the opinions of PWDs about VR services that provided to them.

#### **5.4.2.1 Sample.**

The target participants of this stage were PWDs who had or was currently receiving VR services in VR associations (including centers for employment, sheltered workshop, and vocational guidance) in one of the three the Basque provinces (Álava, Biscay, and Gipuzkoa). The lists provided by the federation of PWDs in the Basque country (Fekoor) identified the associations that provided VR services to PWDs. Fekoor also presented the associations' contacts means.

The researchers contacted the managers of 20 such associations by e-mail or phone to recruit potential participants. Five associations declined to participate because they do not provide VR services; six associations did not respond despite repeated attempts to contact them; and eleven associations agreed to recruit participants. More details about the description of the participants are reported later in the chapter of results.

#### **5.4.2.2 Sampling Technique and Participant Selection.**

The sampling technique used in this study is a non-probability, specifically purposive sampling. This refers to “means that researchers intentionally select or recruit participants who have experienced the central phenomenon or the key concept” (Creswell & Clark, 2007, p. 173). We found this sampling technique best for the study because the aim of this stage is to describe the opinions of PWDs about VR services. Purposeful sampling methods were also used to ensure that individuals who were better suited to respond to the research questions were sampled (Brantlinger et al., 2005; Cresswell, 2011).

Inclusion criteria for participation in the interview included the following: 18 years of age or older, male or female, had physical disabilities to a degree equal or greater than 33%, and has or is currently receiving VR services. Exclusion criteria included potential participants who had a

cognitive disability or hearing impairment, which would compromise the ability to participate in a verbal interview. Based on the inclusion/exclusion criteria no participants were excluded from the study.

#### **5.4.2.3 Instrumentation**

A questionnaire was developed to collect data for the second stage after reviewing the VR literature (e.g., Eugene, 2010; Guy et al., 2009; Hein, Lustig, & Uruk, 2005), and after consultation with local professionals and academic in the VR and employment of PWDs field.

The questionnaire was initially designed in English, before being translated into Spanish by two professional translators with Spanish as their native language and who are fluent in the English, as recommended in the literature review (Solano-Flores, Backhoff, & Contreras-Niño, 2009; Van de Vijver & Hambleton, 1996). The preliminary Spanish version that was developed was then translated back into the original language by a professional translator. These translators (from English into Spanish and vice versa) revised and conducted a final review of both the translated and original texts to ensure that they had been formatted correctly. To ensure the quality of the translation, the three translators and two researchers verified that words had been written exactly to match the original material.

The Spanish questionnaire was then reviewed and revised by three professors who were experts in the field of VR and PWDs employment, based on the clarity, simplicity, and relevance for all questions. It was also piloted with 10 PWDs (six males and four females), who were selected using a simple random sampling from the original pool created from the populations to be studied who were not part of the sample.

This piloting also allows the researchers to be more aware of how respondents understand the questions in the way they were intended, to determine the time needed to conduct the

interview by questionnaire, and to ensure the instrument was conducted in a situation that was as close as possible to the final field-testing.

The questionnaire included two sections of 15 questions comprising closed-ended questions (see Appendix C). The first section inquired about demographic information of PWDs (gender, age, and level education, employment status: if a participant was employed or unemployed). Moreover, the second part designed to assess PWDs' perceptions regarding the VR services that have been provided for them, the services needed and processes of providing them. These questions also examined the counselor role and the success of the VR program.

Internal Consistency Reliability was assessed using coefficient alpha. The coefficient alpha estimate was 0.715 for this scale, with no notable increase through deletion of any items. No items were deleted due to low item-scale values, because the item-total correlations exceeded 0.50 for all items. In accordance with George and Mallery, 2016, this result provided good evidence for the internal consistency reliability of this instrument with this sample.

#### ***5.4.2.4 Data Collection Procedures***

Prior to conducting the research, approval for the study was obtained from the University of Deusto (see Appendix D). The researchers contacted the managers of 20 such associations by e-mail or phone to recruit potential participants (see Appendix A). Five associations declined to participate because they do not provide VR services; five associations did not respond despite repeated attempts to contact them; and ten associations agreed to recruit participants. Information explaining the purpose and procedures of the study was forwarded to each center. After reviewing this information, interested participants scheduled a time to meet with a researcher at their center to complete the study.

At the commencement of each face-to-face interview, the participant was greeted and offered a comfortable place to sit. The interview was initiated with showing courtesy and it was presented with an introduction and explanation of the purpose of the interview. Indeed, the researchers highlighted at this time that every participants' response would be kept confidential and would not reveal their identity.

The instrument was administered verbally by the interviewer or adapted to meet the individual communication needs of each participant with an average time of 30 minutes. Data was collected over a six-month period from April to October 2016 during working daytime hours for the centers. Each participant signed an informed consent form (see Appendix E). The research was approved by the responsible Ethics Commission and was conducted in accordance with the Declaration of Helsinki.

## **5.5 Phase Two: Instrument Development**

The second phase of this study included developing an instrument. This phase aimed to create a valid and reliable instrument to measure PWDs' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country. Moreover, on the other words, the procedure used in developing the instrument was as follows: (1) item creation; (2) translation; (3) Content Validity; and (4) pilot test.

**1. Item creation:** We identified potential items for the instrument by conducting a comprehensive review of the literature (e.g., Diee, 2008; Al-Oweidi, 2015) and the international recommendations and conventions issued by the ILO and COE respectively. Approximately 65% of the items were adapted from recommendations No. 99 and 168, and convention No. 159, issued between 1955-1983 by the ILO. Approximately 35% of the items were drawn from RECO No. r(92)6 resolution, AP(95)3, adopted from 1992-1995, and Reco (2006)5, which was adopted

by the COE (see Table 1). Table 1 shows the initial items for this instrument and display the resources from which items were derived.

**2. Translation:** The questionnaire was initially designed in English because the legal instruments were published in English. It was then translated into Spanish as the initial psychometric testing was to be performed in Spanish-speaking VR centers in the Basque region. To ensure quality, the translation was performed according to the recommendations of Beaton, Bombardier, Guillemin, and Ferraz (2000). Two bilingual translators with Spanish as their native language conducted a forward-translation from English to Spanish, each working independently. The first translator was aware of the instrument concept being measured and has a background in disability and rehabilitation. The second was not aware of the instrument concept and has a background in communications. The translated versions were compared and analyzed until there was a consensus on the final translation.

During the process, a third bilingual person who was aware of the instrument concept was involved, but was not involved in the development of the instrument. Three Spanish speakers tested the Spanish version and, based on their input, a first Spanish version of the instrument was developed. This first version was back-translated to English independently by two bilingual translators. The first translator was a native English speaker who was aware of the concept of the instrument. The second was a Spanish native speaker who was a certified English translator; he was not aware of the concept of the instrument.

The results of the back translation were evaluated and discussed in a group consisting of the four translators, one developer of the questionnaire, and a research psychologist who is experienced in the translation of measurement instruments. Discrepancies in the wording of the instrument were identified, discussed, and resolved through group consensus.

Table 1

*Initial items of the instrument*

Construct	Items	Source
<b>Philosophy or aims of VR association</b>	1. The association provides vocational rehabilitation services as a social responsibility.	ILO, R. No. 99, (1955).
	2. The association helps PWDs to achieve the maximum degree of independence.	COE, R. No. r(92)6, (1992).
	3. The association provides services for people with disabilities that are consistent with national action plans.	ILO, R. No. 99, (1955).
	4. The association provides vocational rehabilitation services to people with disabilities, irrespective of gender and/or disability severity.	ILO, R. No. 99, (1955).
	5. The association delivers vocational rehabilitation services to people with disabilities free of charge.	COE, resolution AP (95) 3, (1995).
	6. The association promotes the integration of people with disabilities within the society.	ILO, R. No. 159, (1983)
<b>Evaluation and determining eligibility</b>	7. The association utilizes a specific model for the purposes of assessment and to determine eligibility.	ILO, R. No. 168, (1983).
	8. The association runs inclusive and relevant interviews with people with disabilities as part of the evaluation.	ILO, R. No. 99, (1955).
	9. The association promotes voluntary action on a collective and individual level to facilitate the collaboration of the public.	ILO, R. No. 159, (1983)
	10. The association has a sufficient number of competent staff to cover all functions.	COE, resolution AP (95) 3, (1995).
	11. The association is assisted by a multidisciplinary team (doctor, psychologist, social worker, placement officer).	COE, resolution AP (95) 3, (1995).

**Vocational rehabilitation guidance**

12. The counsellor verifies that people with disabilities have taken medical examinations for vocational training purposes. ILO, R. No. 168, (1983).
13. The counsellor investigates the personal and family circumstances of people with disabilities. ILO, R. No. 99, (1955).
14. The counsellor orients people with disabilities toward suitable careers based on the evaluation report. ILO, R. No. 159, (1983)
15. The counsellor takes into consideration the willingness and interest of people with disabilities towards various occupations. COE, R. No. r(92)6, (1992).
16. The counsellor provides information for people with disabilities on training opportunities. COE, Rec, (2006)5
17. The association provides vocational guidance based on the Individual Vocational Plan. ILO, R. No. 168, (1983).
18. The counsellor makes individual plans for people with disabilities. ILO, R. No. 168, (1983).

ILO, (1967).

**Vocational training**

19. The counsellor recommends the most suitable vocational future to people with disabilities based on their capacities. ILO, (1967).
20. The association trains people with disabilities under the same conditions as able-bodied people are trained. COE, Rec, (2006)5
21. The association provides vocational training for people with disabilities commensurate with their past experiences. ILO, R. No. 168, (1983).
22. The association considers that training may not be necessary if a person with disability can work without it. COE, R. No. r(92)6, (1992).
23. The association trains people with disabilities in an environment that meets their individual needs. COE, R. No. r(92)6, (1992).
24. The association cooperates with employers to train people with disabilities in the workplace. ILO, R. No. 159, (1983)

**Job related services**

25. The association seeks suitable jobs for people with disabilities. ILO, R. No. 168, (1983).
26. The association considers the professional qualifications of people with disabilities when searching for jobs. ILO, R. No. 159, (1983)
27. The association coordinates with job seekers who have a disability. ILO, R. No. 99, (1955).
28. The association contributes to clarifying for employers the working capacities of people with disabilities. ILO, R. No. 159, (1983)
29. The association eliminates obstacles to the employment of people with disabilities. ILO, R. No. 168, (1983).
30. The association follows up people with disabilities after employing them. ILO, R. No. 159, (1983)
31. The association explores the job satisfaction of people with disabilities. ILO, R. No. 99, (1955).
32. The association examines the work experience records of people with disabilities. COE, Rec. (2006)5
33. The association helps people with disabilities to obtain appropriate jobs. ILO, R. No. 168, (1983).
34. The association shares in proposing legislation related to job placement for people with disabilities. COE, resolution AP (95) 3, (1995).
35. The association supports activities that contribute to the promotion of disability awareness. ILO, R. No. 99, (1955).
36. The association carries out overall assessment to verify the working capacity of people with disabilities. ILO, R. No. 159, (1983)
37. The association ensures that PWDs gain their rights work.
38. Trainers and Trainees move easily inside the association.

**3. Content Validity** Two expert panels evaluated the content validity: an expert panel survey and interviews with managers of VR centers.

Expert panel survey: Content validity was assessed to ascertain whether the items were representative of the content they were intended to measure and appropriate and relevant to the study purpose and conceptual framework. Following the literature review, the instrument was reviewed by seven professors who were experts in the field of VR and PWD employment. All had doctoral degrees and held academic positions at Spanish universities.

Each expert was asked independently, via email (see Appendix F), to rate the relevance of each of the draft 38 items of the conceptual framework on a 5-point Likert scale (1=not relevant, 2=less relevant, 3=relevant, 4=more relevant, 5=highly relevant) (see Appendix G). They were also encouraged to provide further feedback concerning the items.

To determine the experts' inter-rater reliability and to check the validity of the data, the correlation-coefficient between the experts was checked. The correlation between experts' ratings on each item was calculated and the average item-correlation for each pair of experts was obtained (see Table 2).

Table 2 below shows strong agreements, with correlation coefficients ranging from 0.626–0.866, indicating the reliability and stability of their judgements. With Average Measures of Intraclass Correlation Coefficient (0.963) indicating excellent reliability (Koo & Li, 2016), and a significant p value of .00, all correlations between experts were significant.

Table 2

*Inter-rater reliability*

	expert.1	expert.2	expert.3	expert.4	expert.5	expert.6	expert.7
expert.1	1.000						
expert.2	0.771	1.000					
expert.3	0.835	0.696	1.000				
expert.4	0.824	0.698	0.835	1.000			
expert.5	0.835	0.766	0.836	0.835	1.000		
expert.6	0.750	0.626	0.836	0.750	0.754	1.000	
expert.7	0.866	0.740	0.882	0.866	0.882	0.795	1.000
Average Measures=0.963					p = 0.00		

Items that rated by experts at an average agreement score of below 4 out of 5 on the Likert scale was removed (see Table 2). Table 3 below shows two items that were rated by experts at an average agreement score of below 4 out of 5 on the Likert scale (3.00 and 2.86) were removed, because they were not confirmed by the expert panel. All remaining items were valid (average scores 4-5) and were retained, although some items were rewritten to improve clarity. Those items were:

37. “The association ensures that PWDs gain their rights work.”

38. “Trainers and trainees move easily inside the association.”

We then conducted face-to-face interviews with five managers of Basque VR centers to review the item pool revised by the first panel, based on the clarity, simplicity, and relevance, and the adequacy of comprehensive coverage for all items. Each manager had at least a master’s degree specific to VR, and a minimum of five years’ professional experience as a VR center

manager. The results supported the conceptual and operational definitions of the instrument content and the language of all items was deemed acceptable with improved clarity and relevance.

Table 3

*Average score of experts agreement*

Items	Average score	Items	Average score
Item 1	4.00	Item 20	5.00
Item 2	4.00	Item 21	4.86
Item 3	4.14	Item 22	4.14
Item 4	4.14	Item 23	5.00
Item 5	4.00	Item 24	4.14
Item 6	5.00	Item 25	4.14
Item 7	4.00	Item 26	4.29
Item 8	5.00	Item 27	4.00
Item 9	4.86	Item 28	4.14
Item 10	4.71	Item 29	5.00
Item 11	4.00	Item 30	5.00
Item 12	4.00	Item 31	4.86
Item 13	4.00	Item 32	4.14
Item 14	4.00	Item 33	4.14
Item 15	5.00	Item 34	4.14
Item 16	4.00	Item 35	4.14
Item 17	5.00	Item 36	4.00
Item 18	4.29	<b>Item 37</b>	<b>3.00</b>
Item 19	4.00	<b>Item 38</b>	<b>2.86</b>

**4. Pilot test:** The Spanish version was then piloted with a sample of 20 persons with physical disabilities who were randomly selected from Basque VR centers. The mean age of respondents was 37.1 years; 51.7% were male; 56.5% had congenital disabilities; 39% had attended compulsory secondary education; and 65.3% were working. The pilot aimed to ensure that all respondents understood the questions, to determine the time needed to complete the questionnaire, and to ensure the instrument was administered in a situation that resembled as closely as possible the final field-testing.

The questionnaire was presented to PWDs and they were asked to state how they had understood and interpreted the questions and whether they had any difficulties answering them. They could also comment on any items that lacked transparency to provide recommendations for improvement. Generally, the pilot sample confirmed that the items were clearly stated and easily understandable. However, there was a need to provide additional guidelines about the survey (e.g., clarifying its purpose). The average time for completion of the questionnaire was 25 min.

### **5.5.1 Content of Questionnaire**

The resulting instrument consisted of 36 items divided into two sections: (a) general information: five items on gender, age, level of education, status of disability, and work status, and (b) the range of application of international standards at VR centers. This section was subdivided into five domains with thirty-six items as follow:

First, philosophy or aims of VR association: The first domain consists of six items (1-6). These items address the association's philosophy and goals that must be clear and written to achieve decent work for PWDs. The common theme of these items is to determine the rules and principles adopted by VR association (e.g., the association provides VR services as a social

responsibility). Second, assessment and determining eligibility: The second domain consists of five items (7-11). The common theme among these items is determination of an applicant's eligibility for VR services is based on eligibility criteria, such as an applicant has a physical or mental impairment.

Third, vocational rehabilitation guidance: The third domain consists of 8 items (12-19). Items included in these area covered topics related to the preparation an individualized plan for employment of PWD and the role of VR counselor (e.g., a counsellor makes individual plans for PWDs). Fourth, vocational training: The fourth domain consists of five items (20-24). These items focus on an important standard that aim to improve the work of PWDs by providing them with professional training, so that they have the substantial skill in working normally (e.g., an association provides vocational training for PWDs commensurate with their past experiences).

Fifth, job related services: The fifth domain consists of 14 items (25-36). This domain focuses on the way that followed by center to provide decent work for PWDs. It also includes follow-up of PWDs after their employment. However, the common theme of these items is to determine the procedures, activities, and processes used by the associations to search and find suitable work for PWD (e.g., an association seeks suitable jobs for PWDs).

### **5.5.2 Scaling**

Likert Scale is considered the most commonly used in the measurement and scaling of responses, such as attitudes, by asking the individuals to respond to a set of statements about a research topic, in terms of the extent to which they agree with them (Adams & Lawrence, 2018). Respondents can be provided a choice of five to seven or even nine pre-coded responses with the neutral point being neither agree nor disagree (Adams, 2014).

Respondents in this study were asked to determine the extent to which their center was applying these standards on a 5-point Likert scale (from strongly agree to strongly disagree). It deemed appropriate given the purpose of the instrument (DeVellis, 2016; Dee, 2008; Al-Oweidi, 2015). While debate continues about the best number for the response of Likert scale categories (Pearse, 2011), in the study of Brown (2011) stated that five-point Likert scale “become the norm is probably because it strikes a compromise between the conflicting goals of offering enough choice” (p. 6). This is because two or three options do not measure a strength of opinion while more than eight-points lead to unclear differences by a few people (Brown, 2011).

### **5.5.3 Validity and Reliability**

Reliability and validity are important steps to improve the accuracy of developing an instrument, and it is necessary to improve the quality of research (Tavakol & Dennick, 2011).

Validity refers to the degree to which a tool measures what it claimed to measure (Drost, 2011). This also means that the “degree to which measuring instrument measures what it intends to measure” (Long & Johnson, 2000, p. 31). However, there are various criteria measuring validity, including content or face validity, construct validity and criterion validity (DeVon et al., 2007).

Content validity it refers to “the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose” (Haynes, Richard, & Kubany, 1995, p. 1). This means that instruments include a sufficient and representative number of items to ensure that all methods of measuring contents are covered (Straub, Boudreau & Gefan, 2004). This can be achieved through the review of relevant literature and/or the review of instruments that have validated and accepted. Construct validity indicates “the degree to which a test measures what it claims, or purports, to be measuring”

(Brown, 1996, p. 231). In other words, it indicates whether the construction in the instrument or questionnaire really measures what it is designed to measure (Sarantakos 2005; Drost, 2011).

In this study, we used the Exploratory Factor Analysis (EFA) to test the validity of constructs and content validity to ascertain whether the items were representative of the content they were intended to measure and appropriate and relevant to the study purpose and conceptual framework. More details about the measurement of the construct validity are reported later in the chapter of results.

Reliability refers to the extent to which a measurement gives a result that is very consistent (Golafshani, 2003). Furthermore, the instrument is reliable if it measures the same results on repeated occasions. However, there are six different techniques measuring reliability (split-half, test-retest, alternative forms, inter-rater, unidimensional, and internal consistency) that can be used to assess reliability (Straub et al., 2004).

Cronbach's Alpha reliability analysis will compute to determine internal consistency and to ensure reliability of the instrument. Cronbach's Alpha (George & Mallery, 2003) is designed as a measure of internal consistency, that is, do all items within the instrument measure the same thing. The normal range of the value of Cronbach's alpha is between 0-1. The closer alpha is to 1, the greater the internal consistency of items in the instrument (George & Mallery, 2003). There is no total agreement on the acceptable level of Cronbach alpha, a high alpha value indicates the combination of items adequately captures a construct and shares high communalities (Cortina, 1993; Cronbach, 1951). More details about the measurement of the reliability are reported later in the chapter of results.

#### **5.5.4 Sample**

The relationship of the first and second phase of the current study samples was parallel. A parallel relationship indicates that the samples, for this study, are different but are drawn from the same population of interest (Onwuegbuzie & Collins, 2007). To examine the reliability and validity of the Spanish version of the instrument, PWDs across Basque VR associations were sampled. The researchers contacted the managers of 11 associations, which recruited participants in the first phase, by e-mail or phone to recruit other potential participants. Four associations agreed to recruit new participants to participate in the psychometric analysis phase.

On the other hand, we obtained a new list of the VR and employment associations from the website of “Elkartean” to obtain the associations’ contacts mean (<http://www.elkartean.org>). “Elkartean” is the Coordinating Confederation of Persons with physical disabilities of the Basque Autonomous Community. Seven new associations were contacted by e-mail or phone. Two associations declined to participate because they do not provide VR services; and five associations agreed to recruit participants based on the selection criteria (18 years of age or older, male or female, had physical disabilities to a degree equal or greater than 33%, and has or is currently receiving VR services). More details about the description of the sample are reported later in the chapter of results.

#### **5.5.5 Data Collection Procedures**

Prior to conducting the research, approval for the study was obtained from the university of Deusto (see Appendix H). The paper-and-pencil questionnaires were distributed to participants in a meeting room at their VR centers over a seven-month period from March to September 2017. Each participant signed an informed consent form.

## 5.6 Data Analysis Procedures

To address the first research question, the interviews data of managers were analyzed using a coding process, a basic interpretation tool that assists in identifying and organizing the emerging themes in the data (Creswell, 2009). However, after all of the interviews were completely, they were extensively reviewed for accuracy by initially reading each interview and correcting any further errors such as typos. Each data divided for pattern and themes, using open and axial coding.

Open coding is the process of choosing and naming categories from the analysis of the data; axial coding is the next stage after open coding. In axial coding, data are put together in new ways. Axial coding facilitates building connections within categories (Strauss & Corbin, 1994). To ensure the validity of the themes, peer debriefing method was used (Creswell, 2009), which refers to a discussion of results with a peer who has PhD and is familiar with the topic of VR. This process was planned to add quality and honesty to support the integrity of the study's answers.

To address the second research question, descriptive statistics (frequency and percentage) were used to describe the participants, the VR services provided and the most needed, the counsellor role, and success of VR programs.

In order to develop reliable and valid instrument, data obtained from the survey questionnaires were transfer into a spreadsheet manually by the researcher and by another student who studies master degree in psychology. This was to ensure the accuracy for the data. The data were also marked, coded, and entered into the computer twice for validation.

The collected data were first examined in order to ensure the appropriateness of the planned inferential statistics analyses. These examinations included checks for the following (Tabachnick & Fidell, 2013):

- Missing data and outliers.
- Testing normality: before running an analysis of the data, the Kolmogorov–Smirnov test conducted to determine whether the outcomes were analyzable via parametric analyses and to verify whether the participants’ scores reflected a normal distribution.

Descriptive statistics were used to describe the participants. Exploratory factor analysis (EFA) using the principal components method of extraction was applied to the data to identify a factor structure, to check whether the items in each subscale loaded on one factor, and to summarize the items into a minimal number of factors. Items with a factor loading of less than 0.4 were subsequently removed from the instrument. Next, the internal consistency of the subscales was estimated using the Cronbach’s alpha coefficient to establish the homogeneity of the subscale and the consistency of the instrument.

To address the third research question, descriptive statistics (mean and standard deviation) were computed for each item according to participants’ response to the five Point Likert-scales for determine the degree of applying VR standards.

To assess PWDs’ perception regarding the extent of application of international standards, the following equation was adopted as recommended by Al-Oweidi, (2015):

The upper value of the weight - the lower value of the weight / 3

(3 i.e., high, moderate, and low degree)

$$5-1/3 = 1.33$$

$$1.33+1 = 2.33 = \text{low degree}$$

$1.33+2.34 = 3.67 =$  moderate degree

3.68 or more = high degree

Thus, the item weights were as follows: (a) Means ranging from 3.68–5.00 refer to a high applicability degree of international standards; (b) Means from 2.34–3.67 refer to a moderate or average applicability degree of international standards; and (c) Means from 1.00–2.33 refer to a moderate or average applicability degree of international standards.

To address the fourth question or the hypotheses, inferential statistics were used. To investigate the differences in responses of PWDs with respect to the degree of applicability of international VR standards in the hypotheses 1, 4, and 5 according to gender, status of work, and status of disability variables respectively, a Mann-Whitney U test was utilized.

To investigate the differences in responses of PWDs with respect to the degree of applicability of international VR standards in the hypotheses 2, 3, and 6 according to age, educational level, and work of experience variables respectively, a Kruskal-Wallis Test was utilized. IBM SPSS Statistics 23.0 was used for all analyses.

## **5.7 Ethical Considerations**

The research was approved by the responsible Ethics Commission and was conducted in accordance with the Declaration of Helsinki. This study was conducted in accordance with guidelines of the ethical commission of the University of Deusto. In 2015, Ethics approval was obtained from the ethical commission of the University of Deusto. In 2016 the initial ethics approval was extended, as the research project was ongoing. Confidentiality was paramount in this study. We protect the privacy of study subjects by removing information that could be used for identification.

Ethical issues in research including human subjects are an important concern, and include obtaining informed consent, protecting participants from harm, maintaining confidentiality, and professional honesty in reporting research results (Gall, 1996). All collected data are stored, whether written or computerized, in the closet locked file that was only accessible by the researcher and protection for a period of seven years. After seven years from completion of the investigation, any personal identifying data will be destroyed by tearing down.

Each participant signed an informed consent form (see Appendix D). The informed consent showed participants of the objectives of the study; provided an overview of the study's procedures; explained benefits; assured participants that participation was voluntary; and described procedures on confidentiality, privacy, and anonymity. The informed consent process also contained contact information for the researcher and how to obtain a summary of the study's results, if desired or required (Sreenivasan, 2003).

## **5.8 Summary**

This chapter provided a description of the methodology of this study. It started with a description of the research design and reviewed the methods by which data was collected for the two phases that guided this study. It also provided information about the instrumentation involved and explained how the instrument was developed and validated.

The chapter of methodology provided information about the data collection procedures in the Interviews phase and what instrument used to collected data from the participants, including preparation for interviews This chapter also described the stages of instrument development, including (a) review of the extant literature and international recommendations and conventions, (b) outcomes of interviews, (c) generation of dimension and item pool, (d) translation, (e) panel of experts' survey, and (f) pilot testing.

The following chapter outlines the findings of the data collection. Demographic information about the participants is presented. The statistical analysis for each of the five research questions is shown. The results of exploratory factor analysis and reliability are presented. In addition, the findings of the testing of the hypotheses are discussed.

## Chapter 6. RESULTS

### 6.1 Introduction

The purpose of data analysis is to sort and organize meaningless facts and figures that were collected during the data collection phase of a study and interpret them so that they become meaningful and purposeful (Unrau, Grinnell, & Krysik, 1997). The strength of the findings in any particular study relies heavily on the type of analysis being conducted. Unrau et al. (1997) explained that a structured and systematic approach to analyzing data yields useful information, and ultimately, valuable results.

The purpose of this study is to investigate the range of applying the international standards at the VR centers in the Basque country. It also aims to describe the current situation with regard to VR services provided for consumers with disabilities to explore their perspectives about these services. This study also aimed to create a valid and reliable instrument to measure people with disabilities' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country.

This study was designed to answer the following research questions:

Q1: What is the current situation with regards to the services of vocational rehabilitation provided for persons with disabilities at vocational rehabilitation centers in the Basque country?

Q2: What are the opinions of the people with disabilities about the vocational rehabilitation services that is provided to them?

Q3: What is the application degree of international vocational rehabilitation standards in the vocational rehabilitation centers of the Basque country from the perspective of people with disabilities and managers?

Q4: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, status of disability, and work status of PWDs?

Q5: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, and experience work of managers?

Q6: Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to the type of respondents (PWDs and managers)?

This study also was planned to test the following hypotheses, which represent the questions from 4 to 6 and were tested at the 0.05 level:

1. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to gender of people with disabilities.
2. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to age of people with disabilities.
3. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to educational level of people with disabilities.
4. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to work status of people with disabilities.
5. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to status of disability (congenital and acquired disabilities) of people with disabilities.

6. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to gender of managers.
7. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to age of managers.
8. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to educational level of managers.
9. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to work of experience of managers.
10. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to the type of respondents (managers and people with disabilities).

This chapter reports the results of the two phases in the study: the first phase includes two stages: (1) interviews that were implemented with VR managers; and (2) interviews questionnaire were administered to PWDs. The second phase of this study included developing a valid and reliable instrument. The interviews findings describe the current situation with regard to services of VR services provided for PWDs at VR centers in the Basque country based on the interviews with the managers. The interview questionnaire results also describe the opinions of PWDs on VR services that provided to them. The chapter presents how the instrument was developed and analyzed using validity and reliability approaches including assessing construct validity through exploratory factor analysis and examining reliability through internal consistency. It shows the participants' demographic information for each stage of the study. The chapter presents the application degree of international VR standards for the PWDs in the VR

centers in the Basque country. Finally, this chapter displays the results for each of the null hypotheses.

## **6.2 Phase one-First Stage**

This phase includes two stages. The first one is interviews with VR managers and the second stage is interviews with PWDs.

### **6.2.1 Demographic Information of Managers**

A total of 11 managers were interviewed. Participants' demographic characteristics were as follows: male 63.6%, female 36.4%; age range 26- 56 (Mean = 3.36); a high percentage (63.6%) had master degree as their highest level; a high percentage (63.6%) had work experience from 12 to 18 years.

### **6.2.2 Research Question 1**

What is the current situation with regard to services of vocational rehabilitation provided for persons with disabilities at vocational rehabilitation centers in the Basque country?

Themes that appeared from the analysis of the interviews for managers and were put into the following four common categories:

#### **1. Goals of the VR Program**

In asking the managers about goals of the VR program and/or association, their general responses regarding the goals of the VR program are discussed as follows: All managers have made efforts to achieve improved access to the regular labor market for PWDs or to improve their current employment status, and they seek to integrate them into the labor market within the community.

The majority of managers also emphasized improving the quality of life for workers with disabilities through follow up at workplaces. Two out of eleven managers indicated that one of the main objectives of the center was to raise awareness among employers about the capabilities

of PWDs and to provide them with employment opportunities. Only one manager considered family support among the basic objectives of the program, which includes counseling, support groups, and information. One of the association's manager emphasized that one of the general objectives was to avoid any instances of discrimination or social exclusion of PWDs in society in order to obtain equal opportunities and rights.

## 2. Vision and Mission

In asking of where does organization want to be in the future. In this regard, all of managers focused their answer on social development, improving employment outcomes, and social participation of PWDs in their working lives as essential elements of the social justice. One manager indicated that the center would seek to transform society's attitudes positively towards PWDs through their political participation to empower them, to represent themselves, and make decisions based on free and informed consent.

Three managers stated that the organization would try to promote capabilities of PWDs, to reduce dependence and developing greater independence by helping PWDs to become economically stronger.

## 3. Eligibility Conditions for VR Services

Participants had several different types of conditions regarding the eligibility of PWDs for VR services. As a result, 11 managers said that the person who is eligible for receiving various VR services should be of working age, male or female, had disability to a degree equal or greater than 33%, and had a certificate of disability.

Furthermore, the acceptance of consumers to be eligible for these services depends on the type of disability as two associations provided VR services only for people with physical disabilities. Only one association provided VR services for people with cerebral palsy. On the other hand, the rest of associations provided VR services for sensory and intellectual disabilities.

#### 4. Vocational Rehabilitation Services Provided

Managers were asked about VR services provided for PWDs through associations, all of them indicated that the services that provide for PWD are: (a) vocational guidance that help PWD to know what workplaces are most consistent with their abilities, training, and courses through various training activities that can be in pre-labor (before starting work) or in a continuous manner. Vocational guidance aims also to improve the capabilities of the person who is already working, (b) Job search services that provide many job search resources for job seekers with disabilities through coordination with local companies for integration into the labor market, and (c) Four managers said that they provided a sheltered employment for PWDs that is taking place in the special employment centers. These centers are those whose main objective is to carry out productive work, to participate regularly in market operations, to secure gainful employment, and to improve services of personal and social adjustment required by disabled workers.

### **6.3 Phase One-Second Stage**

The second stage involves administrating questionnaire to PWDs through face-to-face interview method. The purpose of the second stage was to describe the opinions of PWDs about VR services that provided to them.

#### **6.3.1 Demographic Information of People with Disabilities**

The interviews were conducted with 136 individuals with disabilities who received VR services through the 11 VR associations in the Basque region across three provinces of “Álava, Biscay and Gipuzkoa”. Table 4 shows the demographic information of the interviewees of disabilities.

Table 4  
*Demographic Characteristics of Respondents with disabilities*

Variable	Categories	N	%
Gender	Male	68	50
	Female	68	50
Age	<25	7	5
	26 - 35	41	30
	36 - 45	42	31
	46 - 55	33	24
	>55	13	10
Level of education	Primary School Education	24	18
	Compulsory Secondary Education	24	18
	Middle Grade Vocational Training/1	31	23
	Superior Grade Training	21	15
	Baccalaureate Education	27	20
	Bachelor	6	4
Work status	Master/ Doctorate	3	2
	Yes	79	60
	No	57	40

As seen in Table 4, participants' demographic characteristics were as follows: physical disability, 100%; male 50%, female 50%; age range 20 to 64 (Mean = 41.15, SD = 10.128); a

high percentage (23%) had middle grade vocational training as their highest level; 60% working, 40% not working.

### **6.3.2 Research Question 2**

What are the opinions of people with physical disabilities about vocational rehabilitation services that provided to them?

Table 5 shows the percentages and frequencies of PWDs' perceptions regarding VR services that received, methods of participation in the VR process, services needed, and reasons of recommendation of VR program to others. The participants were asked about services they received from the VR centers. Consumers were asked about each service separately, so they could report receiving more than one of the services. As seen in Table 5, the vast majority of PWDs indicated that the received services were vocational guidance, vocational training, job interview skills, and job searching. On the other hand, very few participants or (5%) indicated that no services were provided to them.

Table 6 shows the percentages and frequencies of PWDs' perceptions regarding VR services provided and the most needed, the counsellor role, and success of VR programs in serving of PWDs. To assess PWDs' perception regarding the delivery of VR services in a timely manner (see Table 6), the majority of respondents or (78.7%) said they always received VR services in a timely manner (e.g., eligibility determination within 60 days and wait time to receive equipment).

In this regard, PWDs were asked about if the received services prepared them adequately to achieve their professional goals. Of 57.4% of the respondents felt that the program always had prepared them adequately for their vocational goals for joining the associations. In terms of

assisting PWDs to secure jobs by the program, 48.5% of consumers said that counseling and job placement services always helped them get a job.

The participants responded to questions pertaining to their involvement and participation in VR process. Table 6 illustrates that most of the respondents with disabilities felt that the associations involved them in making choices about their goals and services. On the other hand, a small percentage felt that the associations did not involve them in making their choices about their goals.

To determine the methods followed by PWDs for participating in making their choices and goals within VR process, the researchers initially asked PWDs to indicate to the method. As seen in Table 5, the majority of the respondents made their choices by involvement in development an Individualized Plan for Employment and by discussing with their counselors about the necessary services.

Participants answered to questions regarding their opinions on VR counselor's role in VR process (see Table 5). Table 5 shows also the perspective of the participants regarding the VR counselor role in follow up, assistance of PWDs in determining their goals and understand their disability. Of 70% indicated that their counselor always follow them on the VR program. The vast majority of the participants said that their counselor always assist them in determining their goals. Of 82.4% said that their counselor always assist them to understand their disability.

Consumers were asked about the services that they needed but have not been provided by the VR associations. More than half of the respondents said sometimes that the programs did not provide some services and address some issues as required by the consumers of the services (see Table 6). In contrast, only 31.6% participants said that they never need these services.

Moreover, the vast majority of the consumers (92%) showed that they need some programs and courses that teach them job skills or they required career guidance, programs, and classes that would teach them job skills. On the contrary, almost all participants indicated that they do not need technological services and independent living programs.

Consumers answered to questions regarding their opinions on whether VR program successfully serves them, including the duration of the program, meeting their needs, and recommending it to others (see Table 6). The majority of respondents (76.5%) indicated that VR program always meet their professional needs. Of 76.5% indicated that VR program always meet their professional /vocational needs. Most of the respondents felt that the orientation and employment services had successfully served them to achieve their goals.

In asking PWDs if they recommend the VR program to others, the vast majority of the respondents (81.6%) strongly felt that the program was beneficial and would recommend it to others. Some were not sure about this. Only very few participants would hesitate to recommend the program to others. The respondents pointed out several reasons for recommendation VR program to others.

Almost all respondents felt that the VR staff offered great support and positively encouraged them. The other significant reason is the association provides job search services for PWDs. Of 61% said that their vocation was determined based on skills, interests, and abilities. The final reason is 58% of participants said their counselor informs them of their rights and duties.

Table 5

*PWDs' perceptions regarding VR services received and needed, methods of participation, and reasons of recommendation*

1. What are the services that you received by the association?	F	Yes	No	Total
	%			
Vocational guidance	F	128	8	136
	%	94	6	100
Vocational training	F	128	8	136
	%	94	6	100
Job interview skills	F	128	8	136
	%	94	6	100
Job searching	F	128	8	136
	%	94	6	100
Nothing	F	7	129	136
	%	5	95	100
<i>2. How do you participate in making your choices and goals?</i>				
By involvement in development an Individualized Plan for Employment	F	118	18	136
	%	87	13	100
By discussion with your counselor the needed services	F	112	24	136
	%	82.4	17.6	100
By attending and participating in programs and classes	F	6	130	136
	%	4.4	95.6	100
By guiding an explanation of your role and responsibility in the Individualized Plan.	F	2	134	136
	%	2	98	100
<i>3. Which services do you need?</i>				
Assessments that determine your needs of Professional guidance	F	38	98	136
	%	28	72	100
Programs and courses that teach you job skills	F	125	11	136
	%	92	8	100

Technological services and devices that related with vocational	F	8	128	136
	%	6	94	100
Independent living programs	F	1	135	136
	%	1	99	100

*4. Why do you recommend VR program for other?*

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All staff encourage and support you positively	F	130	6	136
	%	95	5	100
Your vocation has been determined on the basis of your skills, interests and abilities	F	83	53	136
	%	61	39	100
The association provides you a job search services.	F	124	12	136
	%	91	9	100
The counselor informs you of your rights and duties	F	79	57	136
	%	58	42	100

---

Table 6

*Percentages and frequencies of PWDs' perceptions regarding VR services*

N	Questions	F	Never	Rarely	Sometimes	Frequent	Always	Total
		%						
1.	Have you received VR services in a timely manner?	F 3	2	3	21	107	136	
		% 2	2	2	15	79	100	
2.	Do you think that the orientation/training that you received prepared you adequately for your professional goals?	F 0	2	33	23	78	136	
		% 0	2	24	17	57	100	
3.	Do you think the counseling and job placement services will help you to get a job?	F 2	2	32	34	66	136	
		% 2	2	23	25	48	100	
4.	Have you involved in making choices about your goals and services?	F 0	5	28	37	65	136	
		% 0	4	21	27	48	100	
5.	Does your counselor follow you on the program?	F 0	1	7	32	95	136	
		% 0	1	5	24	70	100	

6.	Does your counselor assist you in determining your goals?	F	2	4	8	12	110	136
		%	2	3	6	9	81	100
7.	Does your counselor assist you to understand your disability?	F	4	3	11	6	112	136
		%	3	2	8	4	82	100
8.	Is there anything that you needed but have not been provided by the center?	F	43	9	78	3	3	136
		%	32	7	57	2	2	100
9.	Do you think, the duration of the vocational rehabilitation program is adequate?	F	0	2	31	22	81	136
		%	0	2	23	16	60	100
10.	Does VR program meet your professional /vocational needs?	F	1	1	4	26	104	136
		%	1	1	3	19	77	100
11.	In your opinion, do the orientation and employment services successfully serve you?	F	2	2	17	24	91	136
		%	2	2	13	18	67	100
12.	Would you recommend this vocational program to others?	F	1	2	8	14	111	136
		%	1	2	6	10	82	100

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## **6.4 Phase Two: Instrument Validation**

The second phase of this study included developing a valid and reliable instrument.

### **6.4.1 Demographic Information of People with Disabilities**

Table 7 displays the participants' characteristics. A total of 300 questionnaires were distributed to PWDs, 186 of whom (response rate = 62%) met the selection criteria (18 years of age or older, male or female, had physical disabilities to a degree equal or greater than 33%, and has or is currently receiving VR services).

Participants' demographic characteristics were as follows: physical disability, 100% (congenital disabilities, 47.3%; acquired disabilities, 52.7%); male 55.9%, female 44.1%; age range 22–62 (Mean = 42.86, SD = 8.691) (see Table 8); a high percentage (29%) had primary school education as their highest level; 79% working, 21% not working. Psychometric analysis was then implemented using the responses to the 36 instrument items.

### **6.4.2 Factor Analysis**

Prior to proceeding with the EFA, we determined the appropriateness of the data for factor analysis by examining the sample size, correlation of items, determinate of the correlation matrix, Kaiser-Meyer-Olkin test of sampling adequacy (KMO), and Bartlett's test of sphericity.

First, the sample size of 186 met the general rules of at least 150 cases and/or a ratio of at least five cases for each of the 36 scale items included in the analysis (Yong & Pearce, 2013). Second, the correlations among items generally exceeded 0.30 with one exception; the correlation between Item 20 and Items 1, 2, 3, 4, and 5 were .277, .271, .295, .291, and .289 respectively (see Appendix I). Therefore, this one correlation did not provide sufficient evidence to suggest that factoring would not be beneficial (Yong & Pearce, 2013).

Table 7

*Participants' Demographic Characteristics (N=186)*

Variables	F	%
<b>Gender</b>		
Female	82	44.1
Male	104	55.9
<b>Status of Disability</b>		
Congenital disabilities	88	47.3
Acquired disabilities	98	52.7
<b>Work Status</b>		
Yes	147	79.0
No	39	21.0
<b>Level of Education</b>		
Primary School Education	54	29
Compulsory Secondary Education	8	4
Middle Grade Vocational Training/1	30	16
Middle Grade Vocational Training/2	13	7
Baccalaureate Education	30	16
Superior Grade Training	13	7
Bachelor's or University Degree	28	15
Master's	8	4
Doctorate	2	1

Table 8

*of Participants' Demographic Characteristics (N=186)*

	Mean	SD	Min	Max
Age (N = 186)	42.86	8.691	22	62

Third, the determinant score of the correlation matrix of  $.2.36 \text{ E-}017$  exceeded the rule of thumb of  $.00001$ , indicating an absence of multicollinearity (Beavers et al., 2013). Fourth as seen in Table 9, the KMO measure of sampling adequacy represents a high value of  $0.932$ , exceeding the suggested minimum of  $0.6$ , and the Bartlett's test of sphericity was significant ( $p = .000$ ), indicating that these data were appropriate for factor analysis.

Table 9

*KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.932
Approx. Chi-Square	6591.707
Df	630
Sig.	.000

EFA using the principal components method of extraction was run using the oblique rotation method of direct oblimin to decide between oblique or orthogonal rotation based on the correlations among factors. If correlations exceed  $.32$ , then the oblique rotation is recommended (Corner, 2009). The correlations among components were  $0.522$  to  $0.628$ , indicating that it was appropriate to use oblique rotation. Principle axis factor analysis (PAF) using oblique rotation of direct oblimin revealed five components with eigenvalues of  $1.0$  or more.

Parallel analysis was run utilizing the rawpar.sps script developed by O'Connor (2000). A data set was simulated through a syntax written in SPSS besides the actual data, with a sample size of 190, an item number of 36, and the process arranged with an iteration number of 1000. Horn's parallel analysis revealed that three eigenvalues from the sample data exceeded those from a randomly generated data set, indicating that three factors or components should be retained.

As seen in Table 10, the eigenvalue of the first factor in the actual data is 19.395183, but 1.283963 in the simulative data set. The eigenvalue of the second factor was 1.757609 in the actual data, but 1.124490 in the simulative data. The eigenvalue of the third factor was 1.273373 in the actual data, but 1.015058 in the simulative data.

The number of scale factors is limited determinedly to 3 because the eigenvalue of the simulative data (0.968480) of the fourth factor is higher than that of the actual data (0.926834). This case should be considered as the point at which parallel analysis provides a decision on the number of factors. This is supported by the scree plot presented in Figure 2, which shows the curves of the actual and simulative data. The scree plot shows that the first three factors of the actual data have higher eigenvalues than the first three factors of the simulative data.

Table 10

*Eigen Values of the Actual Data and the Simulative Data*

Factor	Eigen values of the actual data	Mean Eigenvalue from Monte Carlo Simulation	Eigen values of the simulative
1	19.395183	1.151208	1.283963
2	1.757609	1.026186	1.124490
3	1.273373	0.929132	1.015058
4	0.926834	0.849821	0.968480

While parallel analysis is an effective method for determining the number of factors and gives good results for our instrument (Çokluk & Koçak, 2016; Wood, Akloubou Gnonhosou, & Bowling, 2015), we decided to retain the number of factors based on the parallel analysis results of three factors.

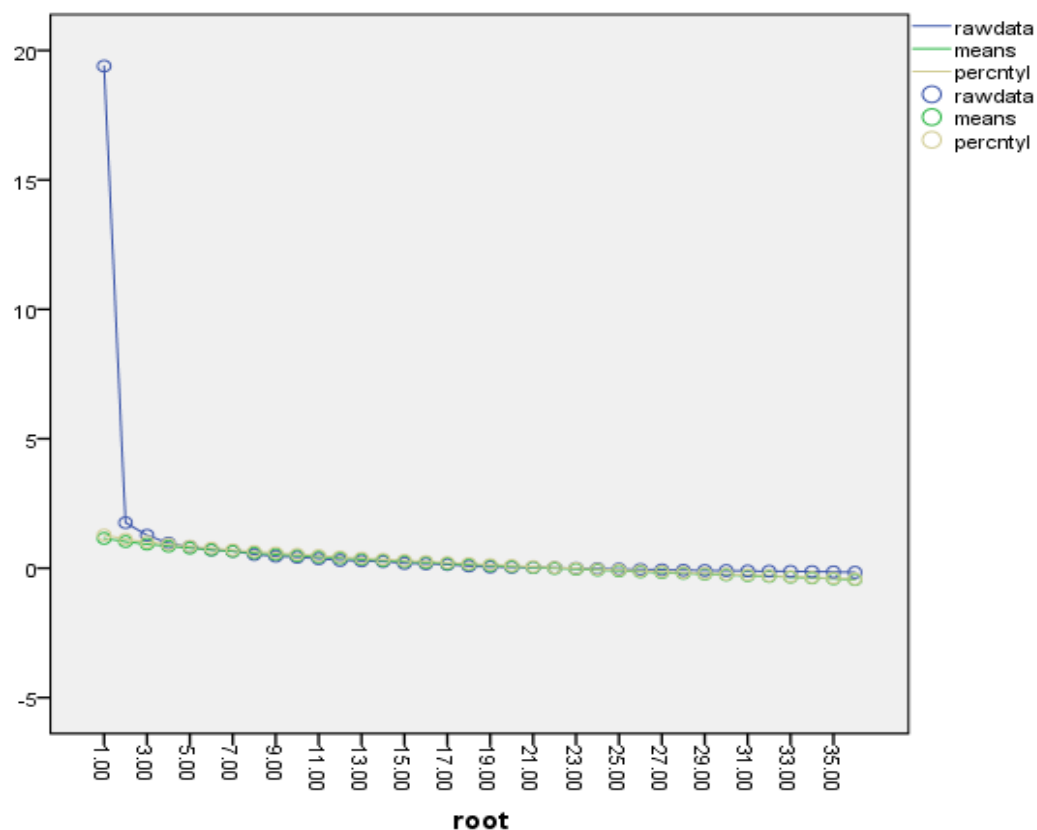


Figure 2. The scree plot of the actual data and the simulative data.

PAF using oblique rotation of direct oblimin based on three factors of parallel analysis results, with minimum item loading of 0.4, resulted in the most meaningful item groupings (see Table 11). The components were as follows:

1. Job related services (Items 30, 23, 24, 26, 25, 28, 22, 21, 31, 33, 32, 36, 20, 27, 34, and 29 in the Appendix J).
2. Philosophy or aims of VR association (Items 3, 4, 6, 1, 2, 8, 7, 5, 9, and 10 in the Appendix J).
3. Vocational rehabilitation guidance (Items 14, 16, 18, 12, 13, 19, and 15 in the Appendix J).

Table 11

*Pattern Matrix*

Item	Factor 1	Factor 2	Factor 3
30	0.864		
23	0.833		
24	0.803		
26	0.783		
25	0.740		
28	0.722		
22	0.696		
21	0.695		
31	0.694		
33	0.631		
32	0.569		
36	0.518		
20	0.513		
27	0.506		
34	0.495		
29	0.442		
3		0.841	
4		0.801	
6		0.774	
1		0.773	
2		0.750	
8		0.658	
7		0.601	
5		0.592	
9		0.465	
10		0.421	
14			0.762
16			0.736
18			0.601
12			0.579
13			0.536
19			0.519
15			0.498

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. Rotation converged in 13 iterations.

During the PAF analysis, two items did not load on any factor with the minimum value of 0.4 and were removed from the analysis (Items 11 and 35, see Table 12). Another item loaded highly on two components and was also removed (Item 17, see Table 13). An examination of the removed items showed that they may be ambiguous, resulting in a lack of pattern in participants' responses.

Table 12

*Items Loaded with less than 0.40 and Subsequently Deleted*

Items	Factor 1	Factor 2	Factor 3
Item 11 The association is assisted by a multidisciplinary team (doctor, psychologist, social worker, placement officer)	0.323	-0.160	-0.224
Item 35 The association supports activities that contribute to the promotion of disability awareness.	0.326	-0.304	-0.217

Table 13

*Items with Cross-Loading*

Items	Factor 2	Factor 3
Item 17 The association provides vocational guidance based on the Individual Vocational Plan.	-0.489	-0.439

### 6.4.3 Reliability

Internal Consistency Reliability was assessed using coefficient alpha. The coefficient alpha estimate was 0.975 for this scale, with no notable increase through deletion of any items (see Table 14). No items were deleted due to low item-scale values, because the item-total correlations exceeded 0.50 for all items. In accordance with George and Mallery (2016), this result provided strong evidence for the internal consistency reliability of this instrument with this sample.

A coefficient alpha was also used to compute internal consistency estimates of reliability for each of the three factors. As seen in Table 15, the first factor consists of 16 items ( $\alpha = 0.953$ ), the second factor 10 items ( $\alpha = 0.934$ ), and the third factor 7 items ( $\alpha = 0.938$ ).

Table 14

*Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.975	.976	33

### 6.5 Research Question 3

What is the application degree of international vocational rehabilitation standards for people with disabilities in the vocational rehabilitation centers of the Basque country?

The third research question examined PWDs' perceptions of the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country.

Table 15

*Mean Values, Correlations, and Cronbach's Alpha Coefficients for each Construct*

Construct	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Factor 1				.953
	30	.824	.948	
	23	.719	.950	
	24	.704	.950	
	26	.789	.949	
	25	.752	.949	
	28	.832	.948	
	22	.629	.952	
	21	.708	.950	
	31	.802	.948	
	33	.740	.950	
	32	.695	.951	
	36	.557	.954	
	20	.763	.949	
	27	.633	.952	
	34	.747	.950	
29	.841	.948		
Factor 2				.934
	3	.782	.925	
	4	.809	.923	
	6	.780	.925	
	1	.761	.926	
	2	.744	.927	
	8	.766	.926	
	7	.761	.926	
	5	.674	.931	
	9	.628	.932	
10	.702	.929		
Factor 3				.938
	14	.866	.922	
	16	.879	.921	
	18	.785	.930	
	12	.700	.937	
	13	.810	.928	
	19	.755	.933	
15	.794	.929		

Respondents were asked to determine the extent to which their center was applying these standards on a 5-point Likert scale (Strongly agree = 5, Agree = 4, Neither = 3, Disagree = 2, Strongly disagree = 1).

A total of 20 managers filled out the questionnaires. Participants' demographic characteristics were as follows: male 45%, female 55%; age range 33–56 (Mean = 46, SD = 6.821); a high percentage (45%) had Bachelor degree as their highest level; work experience range 1-25 years (Mean = 12.85, SD = 5.761). Research Question #3 was addressed by applying descriptive statistics (means and standard deviations) on the responses to the 36 instrument items and on each dimension.

**Job related services:** Table 16 shows the descriptive statistics (means and standard deviations) and applicability degree for each item of job related services for PWDs and managers. The overall mean rating of PWDs' perceptions of the extent of application of international standards regarding the dimension of job related services was high (M=3.84), ranging from 3.51 to 4.11 across the 16 items (SD= 0.70704 ranged from 0.739 to 1.087). Two items (20 and 21) that were rated by PWDs at an average 3.51 and 3.67 respectively, indicating a moderate degree of the application. All means of remaining items were more than 3.68, indicating a high degree of application.

Regarding the responses of managers, the overall mean rating of managers' perceptions of the extent of application of international standards regarding the dimension of job related services was very high (M=4.70), ranging from 4.50 to 5.00 across the 16 items (SD= 0.470 ranged from 1.231 to 0.000). Thus, all items means were more than 3.68, indicating a high degree of application to this dimension.

Table 16

*Mean, Standard Deviations, and Applicability Degree for Job Related Services*

Items	People with disabilities			Managers		
	M	SD	Degree	M	SD	Degree
30. The association follows up people with disabilities after employing them.	3.85	0.950	High	4.70	0.470	High
23. The association trains people with disabilities in an environment that meets their individual needs.	3.81	0.960	High	4.50	0.889	High
24. The association cooperates with employers to train people with disabilities in the workplace.	3.83	0.926	High	5.00	0.000	High
26. The association considers the professional qualifications of people with disabilities when searching for jobs.	3.97	0.897	High	5.00	0.000	High
25. The association seeks suitable jobs for people with disabilities.	3.89	0.983	High	5.00	0.000	High
28. The association contributes to clarifying for employers the working capacities of people with disabilities.	4.02	0.915	High	5.00	0.000	High
22. The association considers that training may not be necessary if a person with disability can work without it.	3.74	0.930	High	4.90	0.447	High
21. The association provides vocational training for people with disabilities commensurate with their past experiences.	3.67	0.973	Moderate	4.60	1.231	High

31. The association explores the job satisfaction of people with disabilities.	3.82	0.906	High	4.90	0.308	High
33. The association helps people with disabilities to obtain appropriate jobs.	3.81	0.739	High	4.50	1.051	High
32. The association examines the work experience records of people with disabilities.	3.80	0.784	High	4.95	0.224	High
36. The association carries out overall assessment to verify the working capacity of people with disabilities.	3.84	0.871	High	4.70	0.470	High
20. The association trains people with disabilities under the same conditions as able-bodied people are trained.	3.51	1.087	Moderate	4.95	0.224	High
27. The association coordinates with job seekers who have a disability.	4.11	0.894	High	5.00	0.000	High
34. The association shares in proposing legislation related to job placement for people with disabilities.	3.75	0.967	High	4.85	0.489	High
30. The association follows up people with disabilities after employing them.	3.85	0.950	High	5.00	0.000	High
29. The association eliminates obstacles to the employment of people with disabilities.	4.03	0.944	High	4.8469	0.18637	High
Overall	3.841	0.70704	High	4.70	0.470	High

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**Philosophy or aims of VR association:** Table 17 shows the descriptive statistics (means and standard deviations) and applicability degree for each item of philosophy or aims of VR association's domain. The overall mean was high ( $M=4.01$ ), ranging from 3.82 to 4.17 across the 10 items ( $SD= 0.703$  ranged from 0.764 to 1.063). All the arithmetic means ratings on each item of philosophy or aims of VR association's domain were more than 3.68, indicating a high degree of application.

Regarding the responses of managers, the overall mean rating of managers' perceptions of the extent of application of international standards regarding the dimension of philosophy or aims of VR association was very high ( $M=4.94$ ), ranging from 4.80 to 5.00 across the 10 items ( $SD= 0.15985$  ranged from 0.224 to 0.000). Thus, all items means were more than 3.68, indicating a high degree of application to this dimension.

**Vocational rehabilitation guidance:** Table 18 shows the descriptive statistics (means and standard deviations) and applicability degree for each item of VR guidance's domain. The overall mean was high ( $M=3.8648$ ), ranging from 3.80 to 4.01 across the 7 items ( $SD= 0.84701$  ranged from 0.941 to 1.034). All the arithmetic means ratings on each item of VR guidance's domain were more than 3.68, indicating a high degree of application.

Regarding the responses of managers, the overall mean rating of managers' perceptions of the extent of application of international standards regarding the VR guidance's domain was very high ( $M=4.90$ ), ranging from 4.65 to 5.00 across the 7 items ( $SD= 0.447$  ranged from 0.16239 to 0.000). Thus, all items means were more than 3.68, indicating a high degree of application to this dimension, except for item (18) was rated moderate.

Table 17

*Mean, Standard Deviations, and Applicability Degree for Philosophy or Aims of VR Association*

Items	People with disabilities			Managers		
	M	SD	Degree	M	SD	Degree
3. The association provides services for people with disabilities that are consistent with national action plans.	4.11	0.914	High	4.95	0.224	High
4. The association provides vocational rehabilitation services to people with disabilities. irrespective of gender and/or disability severity.	4.07	0.845	High	4.95	0.224	High
6. The association promotes the integration of people with disabilities within the society.	4.02	1.063	High	5.00	0.000	High
1. The association provides vocational rehabilitation services as a social responsibility.	4.17	0.820	High	5.00	0.000	High
2. The association helps people with disabilities to achieve the maximum degree of independence.	3.90	0.883	High	4.80	0.894	High
8. The association runs inclusive and relevant interviews with people with disabilities as part of the evaluation.	4.02	0.764	High	5.00	0.000	High
7. The association utilizes a specific model for the purposes of assessment and to determine eligibility.	3.96	0.866	High	4.95	0.224	High
5. The association delivers vocational rehabilitation services to people with disabilities free of charge.	3.82	0.986	High	4.80	0.894	High

9. The association promotes voluntary action on a collective and individual level to facilitate the collaboration of the public.	4.03	0.838	High	4.90	0.447	High
10. The association has a sufficient number of competent staff to cover all functions.	3.98	0.867	High	5.00	0.000	High
Overall	4.0091	0.70302	High	4.9350	0.15985	High

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**The whole Dimensions:** Table 19 shows the descriptive statistics (means and standard deviations) and applicability degree for each of the three dimensions and the whole instrument. All the arithmetic means ratings on each dimension were more than 3.68, indicating a high degree of application. The overall mean of the weights assigned to each statement response was 3.8895 for PWDs and 4.8667 for managers, suggesting that the degree of application is high in whole research instrument.

## 6.6 Testing Normality

Before running an analysis of the data, the Kolmogorov–Smirnov test conducted to determine whether the outcomes were analyzable via parametric analyses and to verify whether the participants' scores reflected a normal distribution. Table 20 indicates the results of normality test for variables of the study based on responses of PWDs. The Kolmogorov- Smirnov significance resulted that all variables are less than the critical value (0.05), and we therefore considered nonparametric statistics to be appropriate for analyzing the data.

Table 18

*Mean, Standard Deviations, and Applicability Degree for Vocational Rehabilitation Guidance*

Items	People with disabilities			Managers		
	M	SD	Degree	M	SD	Degree
14. The counsellor orients people with disabilities toward suitable careers based on the evaluation report.	3.93	0.992	High	4.90	0.447	High
16. The counsellor provides information for PWDs on training opportunities.	4.01	0.997	High	5.00	0.000	High
18. The counsellor makes individual plans for PWDs.	3.80	1.034	High	4.65	0.671	moderate
12. The counsellor verifies that people with disabilities have taken medical examinations for vocational training purposes.	3.82	1.000	High	4.85	0.366	High
13. The counsellor investigates the personal and family circumstances of PWDs.	3.81	0.965	High	4.95	0.224	High
19. The counsellor recommends the most suitable vocational future to people with disabilities based on their capacities.	3.83	1.009	High	5.00	0.000	High
15. The counsellor takes into consideration the willingness and interest of PWDS towards various occupations	3.85	0.941	High	4.8786	0.16239	High
Overall	3.8648	0.84701	High	4.90	0.447	High

Table 19

*Mean, Standard Deviations, and Applicability Degree for Overall Standards*

Dimension	People with disabilities			Managers		
	M	SD	Degree	M	SD	Degree
Job related services	3.8401	0.70704	High	4.70	0.470	High
Philosophy or aims of VR association	4.0091	0.70302	High	4.9350	0.15985	High
Vocational rehabilitation guidance	3.8648	0.84701	High	4.90	0.447	High
Overall standards	3.8895	0.68227	High	4.8667	0.16010	High

Table 20

*One-Sample Kolmogorov-Smirnov Test*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall standards
Test Statistic	0.149	0.183	0.139	0.161
Asymp. Sig. (2-tailed)	.000 <sup>c</sup>	.000 <sup>c</sup>	.000 <sup>c</sup>	.000 <sup>c</sup>

## 6.7 Research Question 4

Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, status of disability, and work status of people with disabilities?

Null Hypotheses Testing for Research Question 4: The following null hypotheses were tested at the 0.05 level:

**Hypothesis 1:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to gender of people with disabilities.

A Mann-Whitney U test was conducted to evaluate the Null hypothesis. As seen in Table 21, the hypothesis was rejected which would suggest that there is no difference in the level of application of international norms according to the gender of PWDs. The p value is more than 0.05.

Table 21

### *Mann-Whitney Results for Gender of PWDs*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Mann-Whitney U	3589.500	3852.000	3613.500	3641.500
Wilcoxon W	6992.500	7255.000	7016.500	7044.500
Z	-1.857	-1.135	-1.793	-1.709
Asymp. Sig. (2-tailed)	.063	.256	.073	.087

**Hypothesis 2:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to the age of people with disabilities.

A Kruskal-Wallis Test was conducted to evaluate the Null hypothesis 2. The age was divided into 5 groups (less than 25, 26-35, 36-45, 46-55, and 56-65 years old).

The results of the test (Table 22) shows that there is no significant difference in the level of application of international norms to vocational centers for all domains according to age of participants with disabilities, which the p value for all domains was greater than 0.05.

Table 22

*Kruskal-Wallis Results of Age of PWDs*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Chi-Square	3.996	4.099	6.693	5.326
df	4	4	4	4
Asymp. Sig.	.407	.393	.153	.255

**Hypothesis 3:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to educational level of people with disabilities.

Kruskal-Wallis Test was conducted to evaluate the Null hypothesis 3. The level of education was divided into 9 groups (Primary School Education, Compulsory Secondary Education, Middle Grade Vocational Training/1, Middle Grade Vocational Training/2, Baccalaureate Education, Superior Grade Training, Bachelor's or University Degree, Master, and Doctorate).

The results of the test (see Table 23) shows that there is a significant difference in the level of application of international norms to vocational centers according to level of education of PWDs for all domains and overall scale.

The master group had a highest average rank of 149.67, while superior grade training group had the lowest average rank of 50.81. In other words, clients with higher level of education were more likely to have a greater perspective on a degree of applicability of international vocational rehabilitation standards.

**Hypothesis 4:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to work status of people with disabilities.

A Mann-Whitney U test was conducted to evaluate the Null hypothesis 4. As seen in Table 24, the hypothesis was rejected which would suggest that there is no difference in the level of application of international norms according to the status of work of PWDs. The p value for all domains is more than 0.05.

Table 23

*Kruskal-Wallis Results for Level of Education for PWDs*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Chi-Square	32.901	43.047	31.746	37.571
df	8	8	8	8
Asymp. Sig.	.000*	.000*	.000*	.000*

*Note.* \*p < .05

Table 24

*Mann-Whitney Results for Status of Work for PWDs*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Mann-Whitney U	2322.500	2681.000	2850.500	2710.500
Wilcoxon W	13200.500	3461.000	13728.500	13588.500
Z	-1.827	-.623	-.054	-.522
Asymp. Sig. (2-tailed)	.068	.533	.957	.601

**Hypothesis 5:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to status of disability (congenital and acquired disabilities) of people with disabilities.

As shown in Table 25, there is no a significant difference in the level of application of international norms to vocational centers according to status of disability, except for philosophy or aims of VR association's domain, which the p value of .050 equal to the significant level. Thus, there is a statistically significant difference in the degree of applicability of philosophy or aims of VR association standards according to status of disability. The congenital disabilities group has an average rank of 101.63 higher than acquired disabilities group had an average rank of 86.20.

Table 25

*Mann-Whitney Results for Status of Disability for PWDs*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Mann-Whitney U	4031.500	3597.000	3815.500	3781.500
Wilcoxon W	8882.500	8448.000	8666.500	8632.500
Z	-.768	-1.959	-1.361	-1.448
Asymp. Sig. (2-tailed)	.442	.050*	.173	.148

Note. \* $p \leq 0.05$

### 6.8 Research Question 5

Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to gender, age, level of education, and experience work of managers?

Null Hypotheses Testing for Research Question 5: The following null hypotheses were tested at the 0.05 level:

**Hypothesis 6:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to gender of managers.

A Mann-Whitney U test was conducted to evaluate the Null hypothesis 6. As shown in Table 26, there is a statistically significant difference only in the degree of applicability of vocational rehabilitation guidance's dimension according to gender of managers, which the p value of .038 less than the significant level of 0.05. The male group had an average rank of 12.95, while female group had an average rank of 7.50. Therefore, the male group had average

greater rank than female group. While the p values for job related services, philosophy and aims of VR association, and overall instrument were greater than 0.05.

Table 26

*Mann-Whitney Results for Gender of Managers*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Mann-Whitney U	30.500	42.500	22.500	27.500
Wilcoxon W	75.500	87.500	67.500	72.500
Z	-1.476	-0.856	-2.226	-1.688
Asymp. Sig. (2-tailed)	0.140	0.392	0.026	0.091
Exact Sig. [2*(1-tailed Sig.)]	0.152	0.603	0.038*	0.095

Note. \*p < .05

**Hypothesis 7:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to age of managers.

Kruskal-Wallis Test was conducted to evaluate the Null hypothesis 7. The age of managers was divided into 4 groups (26-35, 36-45, 46-55, and 56-65). The results of the test (see Table 27) shows that there is no significant difference in the level of application of international norms to vocational centers for all domains according to age of managers, where the all p values are more than 0.5.

**Hypothesis 8:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to educational level of managers.

Kruskal-Wallis Test was conducted to evaluate the Null hypothesis 8. The level of education was divided into 3 groups (Bachelor's or University Degree, Master, and Doctorate).

The results of the test (see Table 28) shows that there is a significant difference in the level of application of international norms to vocational centers in all domains and over all scales, except for job related services. The bachelor's group had an average rank of 14.00, while doctorate group had an average rank of 10.75, and 5.86 was for master group.

Table 27

*Kruskal-Wallis Results of Age of Managers*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Chi-Square	0.564	1.130	1.904	0.863
df	3	3	3	3
Asymp. Sig.	0.905	0.770	0.593	0.834

Table 28

*Kruskal-Wallis Results Level of Education for Managers*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Chi-Square	3.748	6.190	7.189	7.617
df	2	2	2	2
Asymp. Sig.	0.154	0.045*	0.027*	0.022*

Note. \*p < 0.05

**Hypothesis 9:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to work of experience of managers.

Kruskal-Wallis Test was conducted to evaluate the Null hypothesis 9. The work experience group was divided into 3 groups (6-12, 13-19, and 20-26 years)

The results of the test (see Table 29) shows that there is a significant difference in the level of application of international norms to vocational centers, in job related services' domain ( $P = .041$ ) and VR guidance s' domain ( $P = .046$ ), where the values are less than 0.5. The work experience group of 13-19 years had an average rank of 12.07, while work experience group of 6-12 years group had an average rank of 10.68, and 4.00 was for work experience group of 20-26 years

Table 29

*Kruskal-Wallis Results of Work Experience of Managers*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Chi-Square	8.267	4.339	8.005	5.841
df	3	3	3	3
Asymp. Sig.	0.041*	0.227	0.046*	0.120

*Note.* \* $p < 0.05$

## 6.9 Research Question 6

Are there any significant statistical differences at the level of ( $\alpha < 0.05$ ) with respect to the degree of applicability of international vocational rehabilitation standards according to the type of respondents (PWDs and managers)?

Null Hypotheses Testing for Research Question 6: The following null hypothesis was tested at the 0.05 level:

**Hypothesis 10:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to the type of respondents (managers and people with disabilities).

A Mann-Whitney U test was conducted to evaluate the Null hypothesis 10. As seen in Table 30, there is a significant difference in the level of application of international norms to vocational centers according to the type of respondents (managers and people with disabilities) in job related services ( $z = -6.327$ ,  $P = .000$ ); in philosophy or aims of VR association ( $z = -6.366$ ,  $P = .000$ ); in VR guidance ( $z = -5.957$ ,  $P = .000$ ); and in Overall scale ( $z = -6.429$ ,  $P = .000$ ). The managers group had an average rank of 184.88, while people with disabilities group had an average rank of 94.75.

Table 30

*Mann-Whitney Results for Type of Respondents*

	Job related services	Philosophy or aims of VR association	Vocational rehabilitation guidance	Overall scale
Mann-Whitney U	262.000	255.500	358.000	232.500
Wilcoxon W	17653.000	17646.500	17749.000	17623.500
Z	-6.327	-6.366	-5.957	-6.429
Asymp. Sig. (2-tailed)	.000	.000	.000	.000

## 6.10 Summary

Chapter 6 presents the results of the two phases of the study analysis used to answer the research questions guiding this study and the testing of the hypotheses. In summary, the findings of the phase one or interviews with 11 managers of Basque VR centers of the study indicated that they have described the current situation with regards to the VR services provided for PWDs. Four themes or common categories appeared from the analysis of interviews with managers. The first theme is goals of the VR program, where the majority of the managers stated the main goal of VR program is the integration of PWDs in the labor market within the society.

The second one is about vision and mission of VR associations, where the managers focused their answer about social development, promote development and labor and social participation of PWDs in their working life. The third theme is eligibility conditions for VR services, where 11 managers said that the person who eligible for receiving various services should his/her be of working age, for both male and female, he/she have degree of disability with equal or greater than 33% according to the assessment of evaluation centers, they have a disability certificate or have a resolution of social security disability. The forth theme is about VR services provided for PWDs, where all of them indicated that the most frequently services provided for PWDs are vocational guidance/orientation, training and courses through various training activities, and job search.

The first phase of the study also attempted to explore the opinions of the people with physical disabilities about the VR services that is provided to them. The results of interview questionnaire revealed PWDs' perceptions of the importance of VR services in the getting a decent work. Majority of the respondents joined the associations to take advantage of the

services being offered, specifically for vocational guidance, vocational training, job interview skills, and job searching. Most of the respondents with disability felt that the VR associations involved them in making choices about their goals and services, and majority of them made their choices by discussing with their counselors of the needed services.

Moreover, the majority of the consumers showed that they need the professional objective service or they required career guidance and programs and classes that would teach them job skills. Most of the respondents felt that the orientation and employment services had successfully served them achieve their goals. More than half of the respondents strongly felt that the program was beneficial and would recommend it to others who required the services offered. The main reason for recommendation would be because the respondents felt that their vocation has been determined on the basis of your skills, interests and abilities and the VR staff offered great support and positively encouraged them.

The purpose of the second phase of the study aimed to create a valid and reliable instrument to measure people with disabilities' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country. Our instrument addresses three dimensions of VR international standards through feedback from PWDs. In developing the instrument, items were written based on a comprehensive literature review and international recommendations and conventions. Through these efforts, attempts were made to adequately represent the content of the instrument, particularly aspects of those standards that seemed relevant to VR. The final VR standards questionnaire comprises 33 items, divided into three subscales (job-related services, philosophy/aims of VR association, and VR guidance).

Reliability and validity were established through psychometric testing for the data collected from PWDs. This new instrument has excellent reliability, as indicated by the internal consistency of the coefficient alpha, in the .953s, .934s, and .938s, for job-related services, philosophy/aims of VR association, and VR guidance subscales, respectively.

The overall mean of the weights assigned to each statement response was 3.8895 for PWDs and 4.8667 for managers, suggesting that the degree of application is high in whole research instrument. There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to the gender, age, and the work status of people with disabilities.

There is a significant difference in the level of application of international norms to vocational centers according to level of education of PWDs for all domains and overall scale. There is a statistically significant difference in the degree of applicability of philosophy or aims of VR association standards according to status of disability. There is a statistically significant difference only in the degree of applicability of VR guidance's dimension according to gender of managers.

There is no significant difference in the level of application of international norms to vocational centers for all domains according to age of managers. There is a significant difference in the level of application of international norms to vocational centers in all domains and over all scales, except for job related services according to the educational level of managers.

There is a significant difference in the level of application of international norms to vocational centers, in job related services' domain and vocational rehabilitation guidance s' domain according to work of experience of managers. There is a significant difference in the level

of application of international norms to vocational centers according to the type of respondents (managers and people with disabilities).

The following chapter outlines the discussion of the findings. It will discuss the findings for each of the six research questions guiding the study.

## Chapter 7. DISCUSSION

### 7.1 Introduction

The purpose of the current study was to describe PWDs' opinions concerning the VR services provided for them. In addition, the present study explored perspectives of managers of Basque VR centers on the current situation with regards to VR program and VR services provided for PWDs. This study also aimed to create a valid and reliable instrument to measure PWDs' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country.

The purpose of this study was to investigate the range of applying the international standards at the VR centers in the Basque country. Additionally, the study investigate if there are differences in the levels of applying international standards, due to gender, age, level of education, status of disability, and work status of PWDs. The present research also investigate if there are differences in the levels of applying international standards, due to gender, age, level of education, and experience work of managers. The study also explores if there are differences in the levels of applying international standards, due to the type of respondents.

Previous research has indicated that the importance of implementation the VR standards during providing VR services for PWD (Schwab et al., 1993;; Kosciulek, 2003; Larsson & Gard, 2003; Diee, 2008; ILO, 2015). Nevertheless, few studies have investigated the extent of application of the VR standards (Al-Oweidi, 2015; Diee, 2008; U.S. Department of Education, 2009). But, up to now, no researches have been found surveying the extent of application of the VR standards in the Basque region. While researchers discuss issues like U.S. Government Accountability Office (GAO) standards (U.S. Department of Education, 2009), and Arab labors

criteria (Al- Oweidi, 2015; Diee, 2008), we fill this gap by extending this study to look for international standards derived by ILO, and additionally, by the COE.

This chapter discusses the findings associated with this study and the range of applying the international standards at the VR centers in the Basque country. The chapter begins with a summary of study findings. This chapter presents an interpretation of the findings. This chapter discusses the hypothesis and other meaningful data and presents literature and rationale that support the statistics. This chapter discusses the findings for each of the six research questions guiding the study and the chapter summary.

## **7.2 Summary of the Findings**

Phase includes two stages. The first one is interviews with VR managers and the second stage is interviews with PWDs. The first question was open-ended and were answered using thematic analysis to identify the perceptions of 11 managers of Basque VR centers of the current situation with regards to the VR program. Results revealed four major themes to describe current situation of the VR program in the Basque region: (a) goals of the VR program, (b) vision and mission of VR centers, (c) eligibility conditions for VR services, and (d) VR services provided for PWDs.

On the other hand, the second stage of the first phase also attempted to explore the opinions of the people with physical disabilities about the VR services that is provided to them. The second question was answered by descriptive statistical analysis (i.e., frequencies and percentages) to determine PWDs' perceptions of the VR services that provided to them. The results indicated that although PWDs perceive VR and employment services as advanced and beneficial, there is a need to provide additional courses about work skills. Majority of the

respondents joined the associations to take advantage of the services being offered, specifically for vocational guidance, vocational training, job interview skills, and job searching.

The second phase of this study included developing an instrument. This stage aimed to create a valid and reliable instrument to measure PWDs' perceptions regarding the extent of application of international standards issued by the COE and ILO in VR associations in the Basque country. Reliability and validity were established through psychometric testing for the data collected from PWDs.

Our instrument addresses three dimensions of VR international standards through feedback from PWDs. The final VR standards questionnaire comprises 33 items, divided into three subscales (job-related services, philosophy/aims of VR association, and VR guidance). This new instrument has excellent reliability, as indicated by the internal consistency of the coefficient alpha, in the .953s, .934s, and .938s, for job-related services, philosophy/aims of VR association, and VR guidance subscales, respectively.

The third question was answered by descriptive statistical analysis (i.e., means and standard deviations) to determine PWDs' and managers' perceptions regarding the extent of application of international standards by VR associations. Results indicated the degree of application is high in whole research instrument or standards based on perceptions of managers and PWDs.

The fourth research question or the first five hypotheses were answered using inferential statistics to determine if there was a difference in PWDs' perceptions according to their gender, age, level of education, status of disability, and work status regarding the extent of application of international standards by VR associations. Results indicated no significant differences according to the gender, the age, and the work status of PWDs. The results also indicated there is

a significant difference according to: (a) level of education of PWDs for all domains or standards; and (b) according to status of disability in the degree of applicability of philosophy or aims of VR association.

The fifth research question or the hypotheses (6, 7, 8, and 9) were answered using inferential statistics to determine if there was a difference in managers' perceptions according to their gender, age, level of education, and work experience regarding the extent of application of international standards by VR associations. Results indicated no significant differences according to age managers. The results also indicated there is a significant difference according to: (a) level of education of managers for all domains or standards, except for job related services; (b) gender of managers only in the degree of applicability of VR guidance standards; (c) work experience only in job related services and VR guidance standards.

The sixth research question or the hypothesis (10) was answered using inferential statistics to determine if there was a difference in the extent of application of international standards by VR associations according to the type of respondents (managers and PWDs). The results indicated there is a significant difference according to the type of respondents in the all standards.

### **7.3 Discussion of Results the First Question**

What is the current situation with regard to services of vocational rehabilitation provided for persons with disabilities at vocational rehabilitation centers in the Basque country?

The findings of interviews with the managers of this study indicate that the 11 managers focused on the main goal of VR program is the integration of PWDs in the labor market within the society. In addition, the managers focused their answer about social development, promote development and labor and social participation of PWDs in their working life responding to the

vision and mission of their VR association. These results are consistent with a number of studies (Patterson et al., 2005; Rubin & Roessler, 2008).

In those studies, the researchers reported that the major goal of VR is to help PWDs regain their independence through their employment and integration into the society. This finding is not surprising since the employment is the primary objective of the VR program and it shall be considered one of the most important components that contribute to integrate PWDs in society. The integration also enables PWDs to live with people without disabilities together by increasing their social participation and establishing communication with other. This can be accomplished through improving VR services as part of creating the decent job opportunities (European Disability Strategy, 2010).

In the present study, all managers indicated that the PWD in order to be determined eligible to receive VR services, they must meet the eligibility criteria, including: person should be in working age, both male and female, he/she have degree of disability with equal or greater than 33% according to the assessment of evaluation centers, they have a disability certificate or have a resolution of social security disability.

Furthermore, the findings are in accordance with the eligibility criteria presented in Sec.102 (a) (1) of the Rehabilitation Act of 1973. In this Act, the criteria eligibility is an individual with a disability who both have a physical or mental impairment which for such individual constitutes or results in a substantial impediment to employment; and can benefit in terms of an employment outcome from VR services.

The second criterion is that the person requires VR services to prepare for, secure, retain, or regain employment. Results from interviews with the managers also indicated that the most frequently services provided for PWDs are vocational guidance/orientation, training and courses

through various training activities, and job search. The present findings seem to be consistent with other research, which found VR services include vocational assessment, vocational guidance, vocational training, job placement, and follow up (Counsel of Europe, 1995; ILO, 2004; Wilhelm & McCormick, 2013; Gutierrez, 2014).

A possible explanation for this might be that Kosciulek et al. (1997) confirmed that VR services contribute to empowering PWDs to obtain and maintain useful work and economic self-sufficiency. More specifically, 76% of respondents in their study agreed that VR services played a role in helping them to gain employment.

#### **7.4 Discussion of Results the Second Question**

What are the opinions of people with physical disabilities about vocational rehabilitation services that provided to them?

The first phase of the study also attempted to explore the opinions of the people with physical disabilities about the VR services that is provided to them. The results of interview questionnaire revealed PWDs' perceptions of the importance of VR services in the getting a decent work. The majority of the respondents joined the associations to take advantage of the services being offered, specifically for vocational guidance, vocational training, job interview skills, and job searching.

There are several possible explanations for this result. First, VR services that meet the needs and expectations of PWDs and can improve PWD satisfaction with VR programs. The second possible explanation is Nalven et al. (2005) found that PWDs who were in receipt of supported employment or job coaching services were pleased with those services. The final possible explanation is some studies indicated that vocational training was an important factor in relation to positive customer outcomes (Hein et al., 2005; Homa, 2004; Koch, 2001; Moore,

2001; Patterson & Leach, 1987; Pi, 2006; Roessler & Bolton, 1985). For example, Koch (2001) found that the most frequent preference of participants was for training and placement.

Most of the respondents with disability felt that the VR associations involved them in making choices about their goals and services, and majority of them made their choices by discussing with their counselors of the needed services. This result is consistent with what was stated in the US Rehabilitation Act Amendments of 1992, which suggested that PWDs should be assisted to make choices and decisions during the VR process (Rehabilitation Act Amendments, 1992, 1998).

This finding corroborates the results of Guy (2009), who found 82% of the respondents reported that they were in strong agreement that they were involved in making choices about their goals and services. It may be that these PWDs benefitted from involving them in making choices about their goals and services. This result may be explained by Guy (2009), who found that in cases where the VR Counselors who understood their consumer's disability, involved them in making choices about their rehabilitation goals and services and provided appropriate services, had successful VR outcomes.

The interviews with PWDs of the present study also found that there is a large percentage of the respondents who think that the duration of the vocational program is adequate. However, some significant percentage of the respondents had some doubt about the duration of the program as some thought the program was not adequate. This is because the PWDs believe the VR program has not been an asset to their vocational needs.

A few respondents felt sometimes that the association had not prepared them for their goals. This outcome is consistent with a series of results by Szymanski and Parker (1989),

Szymanski (1991), and Szymanski and Danek (1992) that the VR counselor's skill and knowledge relates directly to the outcome of increased employment opportunities.

As purported by Szymanski (1991), the significance of qualified VR counselors with disability and rehabilitation process expertise for promoting positive outcomes among consumers of rehabilitation services cannot be over stated. This result confirms that the provision of VR services in a timely manner is an important aspect of VR services that can lead to positive VR outcomes (Ipsen & Goe, 2016; Koch, 2001; Kosciulek et al., 1997; Guy, 2009; Noble, 2010; Schwab et al., 1999).

Moreover, the majority of the consumers or 92% showed that they need professional objective service or they required career guidance on professional objectives, programs, and classes that would teach them job skills. In other words, there is a need to provide additional courses about work skills. These findings are consistent with the (Nalven et al. (2005) study in which the findings indicated that some participants noted a need for more assistance with career exploration. They needed more direction to identify interests and career goals that would really improve their lives.

It also supports study of Murphy & Salomone (1983) indicated that their participants were desires for vocational guidance, job training, and direct placement services. This result may be explained by the fact that the possession practical work experience by PWDs, such as internship or job sampling, they would have a better sense of whether their career goal or their chosen education program is what they actually want (Nalven et al., 2005).

The vast majority of the respondents (81.6%) strongly felt that the program was beneficial and would recommend it to others. The main reason for recommendation would be because the respondents felt that their vocation has been determined on the basis of their skills,

interests and abilities and the VR staff offered great support and positively encouraged them.

This result is consistent with those of other studies and suggest that the majority of participants indicated that they were happy with VR services and would recommend the VR program to others (Nalven et al., 2005; Parent et al., 1996; Thibodeau, 1991).

## **7.5 Instrument Development and Validation**

Providing a VR program within standardized services is increasingly perceived as an important starting-point for the best outcomes in VR and re-integration, and in enhancing the employability of PWDs (Bell & Mino, 2015). The construct of PWDs' feedback and their views on the services received in VR settings based on international standards has received little attention from researchers. Only a few empirical studies have addressed the importance of applying standards to VR programs and outcomes (Al-Oweidi, 2015; Diee, 2008). A reliable and valid instrument to assess the extent of application of VR standards based on feedback from PWDs is, however, lacking.

Consequently, the extent to which the success of PWDs plays a role in predicting the performance of a VR program cannot be determined. Additionally, insight into the appropriateness of VR services to the individual needs of PWDs and evaluations of program effectiveness in VR centers cannot be gained. Thus, VR program evaluation should also include consumer feedback on the services received (Russell, 1990). To this end, a new questionnaire was developed and validated to evaluate the range of application of international standards at VR centers from the perspective of PWDs.

Historically, few tools have been used to assess the extent of application of VR standards, with the most widely used being Diee's (2008) scale, which was recently utilized in Al-Oweidi's (2015) study. Diee's (2008) scale includes many items, and validity in both studies was

established solely through content validity with the instrument standardized to the response of expert groups. In contrast to our findings, these studies provided no evidence of construct validity based on factor analysis to analyze which variables go together.

Our instrument contained fewer items than Diee's (2008) tool due to the modifications suggested by the VR managers and expert panel, which resulted in the selection of domains and items most appropriate for this study and fit to VR programs in the Basque context. Additionally, each measurement item was consistent with its original meaning, and there was no duplication of relevant items.

Furthermore, in both studies (Al-Oweidi, 2015; Diee, 2008), respondents were limited to the managers and staff of VR centers, with neither study including a sample of PWDs. This study has offered several reasons for designing and validating an instrument for PWDs. First, evaluation of VR programs should include consumer feedback on the services received (Capella & Turner, 2004; Russell, 1990). Furthermore, Torres (1990) reported that if consumer perspectives are not taken into consideration, program ratings and appraisal will be biased towards the views of service providers, while Tucker et al. (1997) have emphasized the importance of consumer ratings in the appraisal process.

Furthermore, consumer expectations are a vital aspect of VR service provision (Rigles, Ipsen, Arnold, & Seekins, 2011), since, as shown in Tucker et al.'s (1997) study, participants were dissatisfied with their VR experience because those experiences did not match their expectations. Rigles et al. (2011) also found that the most important reason for a premature exit from a VR program was a discrepancy between services desired and services received.

Our instrument addresses three dimensions of VR international standards through feedback from PWDs. In developing the instrument, items were written based on a

comprehensive literature review and international recommendations and conventions. Through these efforts, attempts were made to adequately represent the content of the instrument, particularly aspects of those standards that seemed relevant to VR. The final VR standards questionnaire comprises 33 items, divided into three subscales (job-related services, philosophy/aims of VR association, and VR guidance).

Reliability and validity were established through psychometric testing for the data collected from PWDs. This new instrument has excellent reliability, as indicated by the internal consistency of the coefficient alpha, in the .953s, .934s, and .938s, for job-related services, philosophy/aims of VR association, and VR guidance subscales, respectively.

The coefficient alpha values greatly exceeded the desired criterion of 0.70 (George & Mallery, 2016), indicating strong support and very good internal consistency reliabilities of the tool and each of its three factors. The unidimensionality of each subscale was also confirmed from a high internal consistency and corrected item-subscale correlations.

Five demographic items are included in our instrument: gender, age, level of education, status of disability, and work status. When administering the survey for psychometric analysis, we excluded the item on type of disability because only people with physical disabilities completed the instrument. However, when using the questionnaire in other settings, researchers may include these and other demographic variables.

The factor analysis based Kaiser Criterion or eigenvalues of 1.0 or more identified five factors to retain; however, we chose Horn's parallel analysis (PA), which retained only three factors in the construction of the tool, as various studies indicate that PA is one of the best rules for factor selection in factor analysis (Çokluk & Koçak, 2016; Wood et al., 2015). The parallel analysis method is also an eligible, consistent method to decide the number of factors (Wood et

al., 2015). Additionally, these three subscale solutions provided the best conceptual meaning and simple structure of the subscale underlying a set of items.

The accounted proportion of common variance for the three factors (items) was 64.136% of total item variance, indicating that the three components' solutions explained most of the total variance quite well. Most factor loadings were high ( $> 0.6$ ) and the lowest loadings were moderately high. All scale items clearly loaded as expected on factors, except for two items that were subsequently removed from the analysis.

The items with the lowest loading on the job-related services factor concerned the availability of a multidisciplinary team in the VR center (item 11) and activities that contribute to the promotion of disability awareness (item 35). These are considered somewhat different and separate from the majority of other items, and therefore it is perhaps unsurprising that they did not load with the other factor one items. Furthermore, some participants may not have had sufficient information to make a determination on these items.

Interestingly, one of the items (item 17) loaded on both the second and third factors. One interpretation is that some consumers misread or confused the item, which is worded to measure the philosophy of a VR center in offering vocational guidance as a service for PWDs as stated in ILO recommendation No. 99, since all of the items under Factor 2 loaded on and dealt with straightforward vocational guidance and the role of the counselor in the VR program.

## **7.6 Discussion of Results the Third Question**

To answer question 3 which asked about the application degree of international VR standards for PWDs in the VR centers of the Basque country. Means are examined as following (a) means ranged between (3.68-5.00) refer to high applicability degree of international standards; (b) means ranged between (2.34-3.67) refer to moderate or average applicability

degree of international standards; and (c) means ranged between (1.00-2.33) refer to moderate or average applicability degree of international standards.

The field of VR is widely recognized as the tool for social and economic development for PWDs (Rubin & Roessler, 2008). VR program involve PWDs to achieve their employment and integration in the society (Pi, 2006; Morgan, 2013; Maiden, 2014). Researchers worldwide are aware of the importance of the existence of international standards, which constitute of the basis for VR of PWD (Abdelqader, 2003; Al-Oweidi, 2015; Diee, 2008; Finger et al., 2012; Larsson & Gard, 2003; Kosciulek, 2003; Schwab et al., 1993). The ILO and COE developed some of conventions and recommendations (Eide, 2014) that represent the standards of regulating the VR process and improve the quality of as well as the access to VR, especially for PWD (O'reilly, 2007).

To date, however, no research is conducted in the Basque region to determine the extent of application of the VR standards based on PWDs' and managers' perceptions. Therefore, this study comes to measure the perceptions of PWDs toward the application of international VR standards in Basque VR associations. Moreover, this research investigated differences in PWDs' perceptions based on gender, age, status of disability, status of work, and level of education.

With regard to the job related services, philosophy/aims of VR association, and VR guidance, consumers with disabilities and managers had high perception toward its application in the VR associations. This can be attributed to the administrative procedures related to the philosophy and aims of VR centers. VR agencies appear to be making efforts to provide PWDs with the vocational knowledge and skills that can further their career development and help them achieve successful employment outcomes. Another explanation for this result is VR center also seek for enhancing the quality of life for PWD through follow up them as main aim, and VR centers

attempt to avoid any situation of discrimination or social exclusion for PWDs in the society to access for equal opportunities and rights.

This finding is consistent with those of Al-Oweidi (2015) and Diee (2008). Al-Oweidi (2015) found that the applicability is high in center's philosophy for VR standards, and Diee (2008) found that the applicability is moderate in aims of VR centers. Moreover, Larsson and Gard (2003) stressed the importance of early planning and development for VR programs through a set of measures, the most important of which is defining clear and practical objectives.

With regard to the VR guidance, consumers with disabilities and managers had high perception toward its application in the association. This finding was not unexpected as the VR literature has frequently reported that providing vocational counseling and guidance with other VR services lead to successful consumer outcomes in terms of VR and facilitating finding job opportunities (Chiu et al., 2013; Chen & Chan, 2014; Chiu et al., 2015; Austin & Lee, 2014; Giesen & Hierholzer, 2016; Guy, 2009; Maiden et al., 2014; Mamboleo et al., 2015).

On the other hand, many studies have pointed to the importance of the VR counselor role in the rehabilitation of PWD with VR programs. For example, Capella and Turner's (2004) study demonstrated that satisfaction with VR programs was influenced by counselor encouragement, helpful information, returned phone calls, and supportiveness. In a study by Koch (2001), the strong preference by participants was for counselor support and encouragement. This finding is consistent with those of Al-Oweidi (2015) and Diee (2008), where they found that the applicability is high in vocational guidance standards.

Similarly, the degree of applicability of international norms regarding job related services was high based on PWDs and managers' perceptions. Consistent with previous literature (Hein et al., 2005; Homa, 2004; Koch, 2001; Moore, 2001; Patterson & Leach, 1987; Pi, 2006; Roessler

& Bolton, 1985), vocational training and employment service was an important factor in relation to positive customer outcomes.

The majority of participants in Nalven et al.'s (2005) research indicated that education and training programs were very useful, and they attributed this result to the significant role of training in improving PWD employment. In a study by Koch (2001), the most frequent preference of participants was for training and placement. Finally, Roessler and Bolton (1985) revealed that vocational training services positively impacted consumer outcomes. Altantawy (2016) found that the most highly rated career development services in terms of importance were on the job training, job coaching, supported employment, job placement, and job readiness training.

Most of the respondents agreed with the procedures taken. Such a finding may be due to the fact that most of the participants have jobs and they need follow up in the worksite. They might have worked under similar policies and faced the same barriers to service delivery such as insufficient funding for career development services.

This result might be due in part to the fact that job placement service is one of the services that have been identified as important predictors of competitive employment for youth with disabilities (Alsaman & Lee, 2016; Giesen & Cavanaugh, 2012; Migliore et al., 2012; Schaller et al., 2006; Strauser et al., 2010).

## **7.7 Discussion of Results the Forth Question**

Discussion of null hypotheses for research question 4: The following null hypotheses were tested at the 0.05 level:

Hypothesis 1: There is no statistically significant difference in the degree of applicability of international VR standards between according to gender of PWDs. The hypothesis number

one was rejected which would suggest that there is no difference in the level of application of international norms according to the gender of PWDs.

The result of this hypothesis differs from the study of Diee (2008), which showed that there is no a significant difference in the level of application of international norms to vocational centers according to gender in the vocational orientation and guidance's domain. He also found there is a significant difference according to the gender only in the philosophy pf VR center and vocational training, therefore this result did not support our findings regarding there is a significant difference in the level of application of international norms to vocational centers according to gender in the other domains. The result of the first hypothesis differs from Elmaleh's (2000) study that shown the differences between genders can be attributed to cultural differences and societal perceptions of persons with disabilities (Elmaleh, 200). The result of this hypothesis is consistent with the study of Noble (2010), which showed that there is no any statistical differences in levels of satisfaction between men and women regarding VR services.

Hypothesis 2: There is no statistically significant difference in the degree of applicability of international VR standards according to age of PWDs.

The results of the Kruskal-Wallis test shows that there is no significant difference in the level of application of international norms to vocational centers for all domains according to age of participants with disabilities, where the all p values are more than 0.5.

This finding is in agreement with Tucker et al. (1997) findings which showed no significant differences in clients' satisfaction rating of counselors and VR services when the clients' age was analyzed. The finding of hypothesis 2 differ from some published studies (Chen et al., 2015; Janikowski et al.,1991; Michon et al., 2005; Pi, 2006; Vercillo, 2008; Martz & Xu,

2010). Pi (2006) found that age was related to employment outcomes. Michon et al. (2005), age of PWDs may influence the VR process.

**Hypothesis 3:** There is no statistically significant difference in the degree of applicability of international VR standards according to educational level of PWDs.

The results of the test of Kruskal-Wallis shows that there is a significant difference in the level of application of international norms to vocational centers according to level of education of PWDs for all domains and overall scale. The findings of this hypothesis is supported by many researchers (Chen et al., 2015; Giesen et al., 2012; Mamboleo et al., 2015; Noble, 2010; Pi, 2006; Schoen, 2010; Pi, 2006).

Previous studies have reported level of education was positively related to employment outcomes (Chen et al., 2015; Giesen et al., 2012; Schoen, 2010; Pi, 2006). Mamboleo et al. (2015) found younger and had higher level of education with arthritis were more likely to attain competitive employment. Noble (2010) found that more educated people were more likely to report satisfaction with the services that they received.

**Hypothesis 4:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to status of work of people with disabilities.

Surprisingly, no differences were found in the level of application of international norms according to the status of work of PWDs. This is consistent with Nebeker, Bown, and Todhunter (2016) found that getting a job did not necessarily create satisfaction with the VR process.

One explanation of this result is the many employed and unemployed participants in the study of Hein et al. (2005) expressed a desire to obtain further education as a result of their participation in the rehabilitation program. Another explanation for this result is the client's

employment status at the inception of his or her VR program is taken into close consideration during the case planning and goal-setting phases of the VR process (Rubin & Roessler, 2008).

In contrast, Meade et al. (2006) found employed participants rated their VR services higher than those who were not employed. Lustig, Strauser, Riee and Rucker (2002) found that employed clients had a stronger working alliance than unemployed clients. Participants in the study of Nalven et al. (2005) who are employed reported a high rate of satisfaction with the state's VR agency services. Those who are unemployed were generally less satisfied with the services they received as well as their employment situations.

The objective of the study of Chiu et al. (2015) is to investigate the difference between employed and unemployed groups. The findings explored the employed people with diabetes more likely than unemployed to receive deferent VR services, including vocational assessment, counseling and guidance, and on-the-job supports. By contrast, the unemployed group with diabetes was more likely to receive vocational training, job readiness, and job placement.

**Hypothesis 5:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to status of disability (congenital and acquired disabilities) of people with disabilities.

The results of the test of Mann-Whitney U shows that there is a statistically significant difference only in the degree of applicability of philosophy or aims of VR association standards according to status of disability.

In contrast, Perdue (2011) reported that there is no difference in their experiences at the VR center between people born disabled with those that acquired a disability after birth, through using a survey based on a five-point Likert-scale to assess the perception of 80 individuals with disabilities throughout Tennessee Rehabilitation Center.

## 7.8 Discussion of Results the Fifth Question

Discussion of null hypotheses for research question 5: The following null hypotheses were tested at the 0.05 level:

**Hypothesis 6:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards between females and males or according to gender of managers.

The results of the test of Mann-Whitney U shows that there is a statistically significant difference only in the degree of applicability of vocational rehabilitation guidance's dimension according to gender of managers.

The result of this hypothesis differs from the study of Diee (2008), which showed that there is a significant difference according to the gender of managers and trainers only in the philosophy of VR center and vocational training, therefore this result did not support our findings regarding there is a significant difference in the level of application of international norms to vocational centers according to gender in the other domains.

**Hypothesis 7:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to age of managers.

The results of the test of Kruskal-Wallis shows that there is no significant difference in the level of application of international norms to vocational centers for all domains according to age of managers, where the all p values are more than 0.5.

**Hypothesis 8:** There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to educational level of managers.

The results of the test of Kruskal-Wallis shows that there is a significant difference in the level of application of international norms to vocational centers in all domains and over all scales, except for job related services.

The result of this hypothesis is supported by findings of the study of Diee (2008), which showed that there is a significant difference according to the level of education of managers and trainers only in the philosophy VR center, interacting with local community, and procedures and general activities domain. This result of this hypothesis is due to the managers have a level of education more than a bachelor's degree, suggesting that they have knowledge that qualifies them to determine the extent of applicability of international standards.

Hypothesis 9: There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to work of experience of managers.

The results of the test of Kruskal-Wallis shows there is a significant difference in the level of application of international norms to vocational centers, in job related services' domain ( $P = .041$ ) and VR guidance s' domain ( $P = .046$ ), where the values are less than 0.5.

This result of this hypothesis is due to the managers have work experiences in the field of VR program more than five years. This perhaps indicates that they have knowledge that qualifies them to determine the extent of applicability of international standards.

## **7.9 Discussion of Results the Sixth Question**

Discussion of null hypothesis for research question 6: The following null hypothesis was tested at the 0.05 level:

Hypothesis 10: There is no statistically significant difference in the degree of applicability of international vocational rehabilitation standards according to the type of respondents (managers and people with disabilities).

The results of the test of Mann-Whitney U shows that there is a significant difference in the level of application of international norms to vocational centers according to the type of respondents (managers and people with disabilities).

It was a reasonable expectation that there is a significant difference in the level of application of international norms to vocational centers according to the type of respondents (managers and PWDs). This is because managers of VR centers represent decision makers with regard to VR services and process, where they have knowledge about some international recommendations and conventions that contain standards more than those PWDs do.

This result is consisted with the study of Al Muhairy, Sartawi, Alzoudi, and Abdat, (2013), which found that there were significant differences between the participants in relation to in the level of performance of VR programs for persons with disabilities in favor of vocational trainers (instructors).

Therefore, Steinman et al. (2013) reported a positive association between agency decision-making control over policies and procedures and competitive employment outcomes by consumers who were blind. Their findings also highlight the importance of understanding how management control over areas such as policy and procedures have the potential to influence service delivery and subsequent employment outcomes.

## **7.10 Summary**

This chapter summarizes the study and discusses the findings considering current literature. The results of interviews with the VR managers indicated that the most frequently services provided for PWDs are vocational guidance/orientation, training and courses through various training activities, and job search. The present findings seem to be consistent with other research, which found VR services include vocational assessment, vocational guidance,

vocational training, job placement, and follow up (Counsel of Europe, 1995; ILO, 2004; Wilhelm & McCormick, 2013; Gutierrez, 2014).

In addition, most of the respondents with disability felt that the VR associations involved them in making choices about their goals and services, and majority of them made their choices by discussing with their counselors of the needed services. This result is consistent with what was stated in the US Rehabilitation Act Amendments of 1992, which suggested that PWDs should be assisted to make choices and decisions during the VR process (Rehabilitation Act Amendments, 1992, 1998).

Moreover, the majority of the consumers or 92% showed that they need professional objective service or they required career guidance on professional objectives, programs, and classes that would teach them job skills. In other words, there is a need to provide additional courses about work skills. These findings are consistent with the (Nalven et al. (2005) study in which the findings indicated that some participants noted a need for more assistance with career exploration. They needed more direction to identify interests and career goals that would really improve their lives.

Our instrument contained fewer items than Diee's (2008) tool due to the modifications suggested by the VR managers and expert panel, which resulted in the selection of domains and items most appropriate for this study and fit to VR programs in the Basque context. Additionally, each measurement item was consistent with its original meaning, and there was no duplication of relevant items.

Finally but not least, it was a reasonable expectation that there is a significant difference in the level of application of international norms to vocational centers according to the type of respondents (managers and PWDs). This is because managers of VR centers represent decision

makers with regard to VR services and process, where they have knowledge about some international recommendations and conventions that contain standards more than those PWDs do.

The next chapter outlines the limitations and implications for further research and discusses the implications of the results. In addition, recommendations will be offered for VR practitioners, policy makers, and researchers.



## **Chapter 8. IMPLICATIONS, LIMITATIONS, AND CONCLUSIONS**

### **8.1 Limitations of the Study**

The present study has several limitations that must be considered when interpreting the results. First, since the demographic configuration of the sample was specific to the VR program within the VR associations within the Basque context, limitations may exist in applying the results to other state VR systems or a broader population.

Second, not all of the invited VR centers and managers participated in this research, and the sample size is not large. Further, the small sample from a single geographical region limits the generalizations that can be made about the application VR standards in other locales.

Third, participants in the study were VR managers and consumers of VR services, but did not include VR administrators and counselors. Participants in the study were only individuals with physical disabilities, but did not include other types of disability. Consumers with physical disabilities were the focus of this study. Therefore, study findings may not be generalized to people with other disabilities.

Fourth, managers played a key role in identifying and inviting participants into the study, and the researchers had limited input into participant selection. Managers selected the participants intentionally, because the focus was to gather and accurately report the perceptions and perspectives of PWDs within this specified VR center.

Fifth, the interviews and survey were self-report, with no attempt was made to validate or verify the answers of the participants. Self-report “is type of survey in which respondents read the question and select a response by themselves without researcher interference” (Jupp, 2006, p.170).

This limitation is exacerbated by the fact that participants were asked questions regarding their perceptions or opinions of the VR standards application and the VR services for PWDs. Participants may have interpreted the extension of application of the standards as a direct reflection of their professional experience and not regarding the current situation of their VR program, and therefore may have responded in a socially desirable manner.

Sixth, particularly in this study, the survey was translated into Spanish, and the wording might impact on PWDs' responses although the terms were examined by university professors in the field of employment and VR. The survey format adopted in this study was closed questionnaire which may have limited participants' responses to the range provided, not obtaining more in-depth responses. Seventh, the data collection period extended longer than initially anticipated due to very low initial response rates.

Although the development of a new instrument to measure VR standards has shown promising findings, it does have several limitations that should be addressed. One such limitation involved the content domains of the instrument.

The content domains did not include all possible areas of VR standards such as sheltered work. In the development process, only standards from the comprehensive ILO and COE for VR were considered for this instrument and therefore other relevant norms may have been missed.

Thus, the instrument has limited generalizability for its use to only the three content areas/subscales (i.e., job placement, vocational guidance, and philosophy of VR center). In addition, the selected items to represent each factor may not have well represented the entire domain of each subscale.

Another limitation involved that our instrument may be very complex for different types of disabilities in order to response its items. For example, individuals with cognitive impairments

or with intellectual disabilities would have difficulty understanding the instrument and individuals with low reading levels may also have comprehension problems.

## **8.2 Implications of the Study**

The findings of this study have a number of implications for VR centers, counselors and consumers. This portion of the chapter discusses the study's implications for practice, counselors, and directions for future research.

### **8.2.1 Implications for Practice and Policy**

The integration of PWDs in the labor market within the society was the main goal of the VR program as indicated by all managers who were interviewed. Therefore, VR officials in Basque country need to proceed with integration programs in an attempt to increase opportunities for PWDs to engage with their non-disabled peers through various activities and settings.

In the current study, the services of vocational guidance, vocational training, job interview skills, and job searching were identified as the most important VR services for the preparation of PWDs to work. As a result, such services should be considered by rehabilitation professionals as applicable services options for PWDs to help them achieve their useful work and economic self-sufficiency.

Thus, VR services should be targeted to PWDs needs, interests, abilities, and goals. Thus, it is recommended to provide these services to all PWDs who seek employment, and to develop approaches that lead to rapid implementation of these services in VR agencies.

A reliable and valid instrument to measure the extent of applying of international VR standards has positive implications for consumers with disabilities, VR agencies, and VR counselors in terms of evaluating VR programs. In practice, the instrument provides an easy way

for VR service providers and evaluators to evaluate PWDs according to the international standards.

The measure can be used as a tool to determine efficacy of VR programs designed to assist PWDs to prepare for and engage in gainful employment (Pi, 2006; Morgan, 2013; Maiden, 2014). Providing VR for PWD within standardized services is linked to a higher likelihood of goal attainment, leading to better outcomes and improved VR services (Beveridge & Fabian, 2007; Larsson & Gard, 2003).

In view of the considerable efforts that are required to follow-up PWDs either in the VR program or in the different worksites, VR services providers should be responsive to the concerns and the professional needs of PWDs.

An instrument to measure perceptions of PWDs regarding evaluation VR program based on international standards would enable VR services providers and policy-makers to measure an organization's performance, as it can help to address weaknesses and demonstrate success or progress (Thibodeau, 1991). This can be achieved by including consumer feedback and views on the services received in the evaluation procedures (Capella, 2002; Russell, 1990).

Therefore, such an instrument would also permit follow-up VR providers to identify areas in which PWDs are dissatisfied so that changes could be implemented in how and what services are provided. Thus, to improve satisfaction with VR programs, agencies would adopt clear policies and make correct decisions in relation to PWDs.

VR service providers and evaluators then must ensure that their views are unbiased and/or that they do not ignore consumers' feedback (Torres, 1990). It would also allow follow-up VR providers to identify areas in which PWDs are dissatisfied so changes could be implemented in how and what services are provided. Policymakers and VR professionals must work together

to help inform and spur future proactive policies, practices, and strategies to improve employment outcomes for PWDs based on international standards.

It would be better for VR agencies to take into account consumer expectations when providing VR services and to match discrepancies between the services desired and services received (Rigles et al., 2011).

### **8.2.2 Implications for Counselors**

The results of the present study also highlighted the importance of involving PWD in making his or her choices about VR goals and services and the needed services as the main role for VR counselor. VR counselors play a critical role in the VR process and services. Counselors need to involve their consumer in decision-making in relation to their rehabilitation goals and services. This involvement was found to lead to successful consumer outcomes in terms of VR (Guy, 2009) and it would be led to higher levels of consumer satisfaction (Kosciulek, 2003; Kosciulek et al., 1997; Schwab et al., 1993).

Counselors need to increase the availability of job development services, especially providing more information about job training and internships to help consumers' test out careers. VR counselors need to provide consistent follow-up. This is especially important for those leaving home for the first time.

The current study also indicated the need of PWDs for professional objective service or they required career guidance on professional objectives and programs and classes that would teach them job skills. VR counselors need to provide a disabled person more assistance with career exploration (Nalven et al., 2005). In addition, they need to offer more direction to identify interests and career goals that would really improve PWDs' lives through availability courses about work skills.

VR counselors need to understand the challenges faced by consumers with disabilities. PWDs need to have available supportive resources and plans that are reasonable, especially if they are expected to attain vocational training or orientation.

### **8.2.3 Implications for Future Research**

Based on the findings, the present study can be improved by addressing the limitations noted above, and this section delineates several implications for future research.

Additional studies could be pursued to include participants with greater diversity relevant to disability and different geographical areas, such as deaf and/or blind people. For example, one question to study would be what are the opinions of people with hearing disabilities about VR services that provided to them?

Within the scope of this study, we examined some international standards, while taking into account client and service variables that influence rehabilitation outcomes. In the development process, only standards from the comprehensive ILO and COE for VR were considered for this instrument and therefore other relevant norms may have been missed.

For future research, it would be interesting to include additional VR standards in the suggested instrument, such as the sheltered work, which may have an important impact on rehabilitation outcomes. It may be useful then to further validation of this instrument by collecting data from a new large sample in different geographical areas (MacKenzie et al., 2011; Southwick et al., 2014).

The current study utilized the perceptions of people with physical disabilities to evaluate the range of applying VR standards. Additional research is needed that attempts to investigate the range of applying VR standards based on different types of disabilities.

Thus, the extent of application of VR standards could be different based on the different types of disabilities and the different systems, laws, and societies. To elicit more in-depth responses, conducting research on these standards based on the different types of disabilities. It would be interesting to find out different PWDs' and staff's' perceptions about applying VR standards in different countries.

On the other hand, it may be useful to study the range of applying standards based on the perceptions of VR administrators. A better understanding of administrators' perspectives about the difficulties of applying the standards may allow for better understanding of the obstacles related to policies of VR association.

Because of the nature of survey methodology that used in the exploring the extent of applying VR standards, participants' responses were limited to the provided ranges. The findings of this study indicated that the range of applying VR standards were almost high. However, the reasons for high level of applying these standards were not revealed through research method. Further research using a qualitative methodology, in depth with fewer participants, might explore these reasons.

It is observed from literatures that international standards, such philosophy, goals of VR, vocational guidance, and vocational training act as a basic tool of planning while providing services of VR. Therefore, further studies can create new international standards about VR, specific for each type of disabilities and VR services.

### **8.3 Conclusion**

It is important to provide comprehensive VR services that meet PWD needs, effectively and in a timely manner, particularly the opportunity for training and preparation for employment. In the current study, the services of vocational guidance, vocational training, job interview skills,

and job searching were identified as the most important VR services for the preparation of PWDs to work.

This is because many VR services provided to consumers with disabilities by VR centers meet the needs of PWDs in terms of quality, including vocational training, evaluation, job placement, and types of service related to VR outcomes and PWD satisfaction.

In addition, the need for VR centers to continue to engage PWDs in the decision-making process, aided by qualified counselors who have high levels of career satisfaction, affects the outcomes of VR programs; indeed, it exerts a positive effect upon the outcomes of VR programs such that the outcome also includes PWD satisfaction. Thus, it remains for all VR centers, service providers, and researchers in this field to work collaboratively to expand the understanding of the influence of PWD satisfaction with VR programs.

In order to enable individuals with disabilities to experience the full benefits of community life and to live with dignity in their communities, employment should be available and accessible to those with disabilities as it is one of the essential features to full integration into society. Employment, however, is not a universal remedy for the problems that PWDs experience. Nevertheless, it is one way to gain access to social interaction skills and financial independence. Work therefore enables participation in society.

VR centers that understand how consumers with disabilities wish to be treated at the same time as they pursue the goal of helping PWDs to obtain and maintain work will likely receive positive feedback about their services by the PWDs they serve. In general, centers with the facilities and services to realize policies and procedures are more likely to have a greater effect on providing a successful VR service for PWDs than disorganized center management (Steinman et al., 2013).

A measurement of PWDs' perceptions regarding the current situation of VR programs is a key means to practically apply evaluation of the quality of VR services, which would contribute to improving the effectiveness of VR programs and enhancing the effectiveness of work methods for VR centers. The findings of the study support the literature indicating that the success of VR program and inclusion of PWDs in labor market will consider their views on the services received.

As international VR standards are developed to promote the rights of PWDs in training, employment, and integration, instruments are needed to evaluate the effectiveness of VR centers according to international norms and based on the perceptions of PWDs.

The application of international VR standards in VR centers is not an indicator of the failure of VR centers to deliver relevant services; it is, rather, a key means to practically apply evaluation of the quality of VR services, which would contribute to improving the effectiveness of VR programs and enhancing the effectiveness of work methods for VR centers, particularly for PWDs.

The construct of PWDs' feedback and their views on the services received in VR settings based on international standards has received little attention from researchers. Only a few empirical studies have addressed the importance of applying standards to VR programs and outcomes (Al-Oweidi, 2015; Diee, 2008).

A reliable and valid instrument to assess the extent of application of VR standards based on feedback from PWDs is, however, lacking. To this end, a new questionnaire was developed and validated to evaluate the range of application of international standards at VR centers from the perspective of PWDs.

The instrument appears to be a valid, reliable, and feasible instrument that is easy to administer by researchers or VR professionals to evaluate the performance of VR centers according to PWD perceptions, based on international standards. Validity measures (content and construct validity) and the pilot testing of the instrument support its use in both English and Spanish.

The strength of this measurement tool lies in its inclusion of different standards issued by international organizations and provided as conventions and/or recommendations. Furthermore, the participation of PWDs in the development of the instrument adds to its uniqueness and value.

In sum, data generated from this study can be used to enhance the quality of VR services provided to preparation youth with disabilities, and to address the barriers that negatively affect providing employment services for PWDs. The outcomes provided in this paper would be useful to consumers with disabilities, VR agencies, and VR counselors in terms of evaluating VR programs, leading to the continued development of VR services.

The results of this study lead to several suggestions for VR agencies, staff, diction makers, and counselors in terms of assessing PWD perceptions with VR programs as follows: (1) Measuring perceptions of PWDs at the onset of services as well as at various points during service delivery.

This would result in an enhanced ability to more accurately measure consumer opinion. This measurement can help agencies to identify consumers who are dissatisfied or who do not engage early with VR services, and this information would also enable VR agencies to understand what data and relationships are important to enhance customers' satisfaction.

(2) It would be better for VR agencies to take into account consumer expectations based on international VR standards when providing VR services and to match discrepancies between

the services desired and services received. (3) Increasing and supporting communication and interaction between the counselor and consumer to increase engagement in VR services. (4) Enhancing the quality of services to obtain successful employment outcomes. This information would enable these service providers to understand what data and relationships are important to customers with disabilities.



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**APPENDICES**

## Appendix A

### Letter Contact with Potential Participants

Proyecto de investigación

Buenos días,

Mi nombre es Mohammad soy Psicopedagogo y actualmente me encuentro realizando un estudio que se vincula a mi tesis doctoral en la Universidad de Deusto. El tema que estoy desarrollando es “el alcance de la aplicación de los patrones de orientación laboral en centros de orientación laboral entre personas con discapacidad en el País Vasco”. Me pongo en contacto con ustedes ya que me gustaría poder contactar con personas afectadas de vuestra asociación. El estudio que llevo a cabo consta de dos sesiones, donde se realizará una entrevista de 30 min aproximadamente, un con el gerente y otro con personas con discapacidades.

Si necesitáis mayor información no dudéis en conectar conmigo. Para mí es muy importante poder desarrollar este estudio con vuestros afectados.

Si os encontráis interesados en participar me gustaría que pudieran contactar conmigo a través del e-mail: [mrashaida@opendeusto.es](mailto:mrashaida@opendeusto.es)

Os adjuntados archivos.

1- carta de presentación.

Un saludo

Mohammad Al-Rashaida

## Appendix B

### Interview Manager Questionnaire

El equipo de investigación Neuro-e-motion perteneciente a la Universidad de Deusto está desarrollando un nuevo proyecto orientado a la inserción sociolaboral de personas con discapacidad en la Comunidad Autónoma Vasca. Soy un estudiante de doctorado de la Universidad de Deusto y estoy trabajando en mi tesis. El tema de la misma es “el alcance de la aplicación de los patrones de orientación e inserción laboral entre personas con discapacidad en el País Vasco”. Estas entrevistas pretenden ofrecer una visión general y una descripción de la situación actual de los centros de orientación e inserción laboral en el País Vasco; de cara a avanzar en la preparación y aplicación de otras y en la obtención de datos pruebas (lista de verificación), con vistas a lograr los principales objetivos del estudio, que son:

- Examinar el alcance de la aplicación de los criterios de orientación e inserción laboral internacional en los centros del País Vasco.
- Investigar sus efectos en los centros de orientación e inserción laboral.
- Examinar las perspectivas de los directores y usuarios frente a la aplicación de los criterios internacionales en los centros de orientación e inserción laboral.

Así, querría hacerle unas preguntas sobre aspectos del programa de orientación e inserción laboral, tales como la estructura organizativa, los objetivos del centro de orientación vocacional y los criterios de admisión para personas con discapacidades o los criterios de selección. Antes de comenzar, quiero recordarle que cualquier información que comparta será estrictamente confidencial y será usada con motivo de una investigación científica. No dude en hacer cualquier pregunta sobre el estudio, si así lo desea.

Respetuosamente

**Primera sección: Información General****1. Los centros**

1.1.Nombre del centro \_\_\_\_\_

1.2.Dirección \_\_\_\_\_

1.3.Entidad a la que pertenece el centro:

Gobierno.

Entidad privada.

Otra. Si es así especifique, por favor: \_\_\_\_\_

1.4.Fecha de fundación del centro \_\_\_\_\_

1.5.Fecha de la entrevista \_\_\_\_\_

**2. Los Gerentos**

2.1. Nombre del entrevistado \_\_\_\_\_

2.2. Género  M  H

2.3. Cargo \_\_\_\_\_

2.4. Categoría de edad:  18-25  26-33  34-41

42-49  Más de 50

2.5. Nivel de estudios:

EGB/Educación Primaria  ESO (DBH)

Grado medio/FP1  Bachillerato  Grado superior/FP2

Estudios superiores (Diplomatura, Grado o Licenciatura)

Otros (especifique): \_\_\_\_\_

2.6. Experiencia laboral en el centro:

Menos de 5 años.  5-11 años.  12-18 años.

19-25 años.  Más de 25 años

**Segunda Sección: Preguntas de Entrevista**

1. Cuáles son los objetivos, misión y visión del centro?

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2. ¿Por favor, describa y explique la estructura organizativa del centro?

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3. ¿Qué criterios de admisión tiene el programa de orientación e inserción laboral?

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4. ¿Qué criterios usó usted para determinar de admisión?

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5. ¿Quién toma las decisiones sobre los criterios de admisión de orientación e inserción laboral? ¿Persona o equipo?

-----  
6. ¿A qué tipo de discapacidades ayudan con el programa?

-----  
7. ¿A qué rango de edad está orientado el programa?

-----  
8. ¿A cuántas personas ayudan en este centro? ¿Por qué?

-----  
9. ¿Qué costo tiene para el usuario la aplicación de servicios orientación e inserción laboral? ¿es gratis?

-----  
10. ¿Qué tipo de opciones profesionales entrenan en los usuarios del centro?

-----  
11. ¿Qué tipo de servicios ofrecen para personas con discapacidades en el centro?

-----  
12. ¿Qué medidas de seguridad toma el centro?

-----  
13. ¿Qué prácticas y procedimientos se siguen para promover las medidas de seguridad en el centro?

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14. ¿Cuánto suele durar un programa de orientación e inserción laboral?

¿De qué depende esta duración?

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15. ¿Una vez que el usuario ha completado el programa, ¿qué otras pautas deberían/pueden dar a los usuarios para apoyar su contratación en el mercado laboral?

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Quiero agradecerle para su colaboración y participación

## Appendix C

### Interviews Questionnaire for People with Disabilities

Desde el equipo de investigación Neuro-e-Motion de la Universidad de Deusto (Bilbao) estamos desarrollando un nuevo proyecto orientado a la inserción sociolaboral de personas con discapacidad en la Comunidad Autónoma Vasca.

Estas entrevistas pretenden ofrecer una visión general y una descripción de la situación actual de los centros de orientación e inserción laboral en el País Vasco; de cara a avanzar en la preparación y aplicación de otras y en la obtención de datos pruebas (lista de verificación), con vistas a lograr los principales objetivos del estudio, que son:

- Examinar el alcance de la aplicación de los criterios de orientación e inserción laboral internacional en los centros del País Vasco.
- Investigar sus efectos en los centros de orientación e inserción laboral.
- Examinar las perspectivas de los directores y usuarios frente a la aplicación de los criterios internacionales en los centros de orientación e inserción laboral.

Así, querría plantearle unas preguntas sobre aspectos del programa de orientación e inserción laboral aproximadamente tendrá treinta minutos. Antes de comenzar, quiero recordarle que cualquier información que comparta será estrictamente confidencial y será usada exclusivamente de una investigación científica. No dude en hacer cualquier pregunta sobre el estudio, si así lo desea.

Respetuosamente

**I. Datos sociodemográficos**

## 1. Género

 Hombre Mujer

## 2. Edad \_\_\_\_\_

**3. ¿Cuál es el máximo nivel de estudios alcanzado?** Educación Primaria Educación Secundaria Obligatoria Grado medio/FP1 Formación Profesional de Grado Medio Bachillerato Formación Profesional de Grado Superior Estudios superiores (Diplomatura, Grado, o Licenciatura) Master/Doctorado**4. ¿Tiene actualmente trabajo?** Sí No

## II. Percepciones sobre el programa de rehabilitación profesional

### 1. ¿Qué servicios de empleo ha recibido?

- Puede elegir más de un opción

- Orientación laboral.
- Formación profesional.
- Habilidades de entrevista de trabajo.
- Búsqueda de trabajo.
- Ninguno que ofrece a la persona.
- Otros, especifique por favor \_\_\_\_\_

### 2. ¿Ha recibido servicios de preparación profesional de manera oportuna?

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

### 3. ¿Estado en la toma de decisiones sobre tus objetivos y servicios?

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

### 4. ¿Cómo participó en la toma de decisiones y en la determinación de sus objetivos?

- Participando en el desarrollo de un Itinerario de Orientación Individualizado.
- Acordando con su orientador sobre los servicios necesarios.
- Siendo apoyado por su orientador.
- Acudiendo y participando en clases y programas.
- Mediante una explicación del orientador de su rol y responsabilidad en el Itinerario.
- Otros, especifique por favor \_\_\_\_\_

### 5. ¿Cree que la duración del servicio y o itinerario de orientación e inserción laboral es adecuada?

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

### 6. ¿Cree que la formación /orientación que ha recibido le prepara de forma adecuada para conseguir sus objetivos?

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

### 7. ¿Piensa que los servicios del orientación e inserción laboral le ayudarán a conseguir un

**trabajo?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**8. ¿El programa cubre sus necesidades profesionales?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**9. ¿Su orientador realizó un seguimiento de su programa?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**10. ¿El orientador le ayuda a determinar sus objetivos profesionales?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**11. ¿El orientador le ayuda a entender su discapacidad y cómo puede influir en el proceso de búsqueda de empleo?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**12. ¿Hay algo, como servicios, programas u otras cuestiones; que usted necesita pero que no han sido aportados por el centro?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**13. ¿Qué cosas son las que necesita?**

-Puede elegir más de un opción

- Valoraciones que determinen sus necesidades de orientación profesional.
- Objetivo profesional.
- Programas y clases que le enseñen habilidades laborales.
- Servicios e instrumentos tecnológicos de orientación.
- Programas de vida independiente.
- Otros, especifique por favor \_\_\_\_\_

**14. En su opinión, ¿Le sirven satisfactoriamente los servicios del orientación e inserción laboral?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**15.¿Recomendaría este programa de orientación a otras personas?**

( ) Nunca ( ) Rara vez ( ) A veces ( ) Frecuentemente ( ) Siempre

**15.1. ¿Si elige siempre o a veces, Por qué?**

- Puede elegir más de un opción

- El orientador le involucra en la toma de decisiones.
- Todos los profesionales le animan y apoyan de forma positiva.
- Su vocación se ha determinado en base a sus habilidades, intereses y capacidades.
- El programe aporta servicios de búsqueda de empleo a los personas usuarias.
- El orientador le informa de sus derechos y sus deberes.

## Appendix D

### Approval for Conducting the Interviews



#### IMPLEMENTACIÓN DE UN PROYECTO DE INVESTIGACIÓN ORIENTADO AL ANÁLISIS DEL PROCESO DE INSERCIÓN SOCIOLABORAL DE PERSONAS CON DISCAPACIDAD

Equipo de Investigación Neuro-e-motion de la Universidad de Deusto

El equipo de investigación Neuro-e-motion perteneciente a la Universidad de Deusto presenta un nuevo proyecto orientado a la inserción sociolaboral de personas con discapacidad en la Comunidad Autónoma Vasca.

Nuestro equipo lleva más de una década trabajando intensamente en este ámbito y, en esta ocasión, la propuesta de estudio viene enmarcada por la necesidad de profundizar el modelo vigente atendiendo a criterios internacionales. El objetivo del estudio consiste en, principalmente, analizar los puntos de vista y la percepción de los gestores de centros especializados, presidentes de asociaciones y usuarios con alguna discapacidad.

Dentro del mencionado proyecto, el doctorando Mohammad Al-Rashaida se encargará de liderar dicho estudio. En el mismo, se tratará de realizar entrevistas dirigidas, por un lado, a responsables de los centros especializados y asociaciones de personas con discapacidad y, por otro lado, a usuarios con discapacidad. La información de dichas entrevistas será absolutamente confidencial atendiendo a las directrices de la comisión ética de la Universidad de Deusto. El tiempo de entrevista lo tenemos cifrado en torno a los 40 minutos.

Le acompaño los dos tipos de entrevistas para que estén perfectamente informados y, en caso de necesitar alguna aclaración, no dude en ponerse en contacto en la siguiente dirección electrónica:

[mrashaida@opendeusto.es](mailto:mrashaida@opendeusto.es)

Reciba un cordial saludo.

Equipo de Investigación Neuro-e-motion  
Facultad de Psicología y Educación  
Universidad de Deusto  
Avda. Universidades, 24  
48007 Bilbao



## Appendix E

### Informed Consent for Interviews

Si usted accede a participar en este estudio, se le pedirá responder preguntas en una entrevista. Esto tomará aproximadamente 30 minutos de su tiempo. Lo que conversemos durante estas sesiones se será escrito, de modo que el investigador pueda transcribir después las ideas que usted haya expresado.

La participación en este estudio es estrictamente voluntaria. La información que se recoja será confidencial y no se usará para ningún otro propósito fuera de los de esta investigación. Sus respuestas al cuestionario y a la entrevista serán codificadas usando un número de identificación y por lo tanto, serán anónimas.

Si tiene alguna duda sobre este proyecto, puede hacer preguntas en cualquier momento durante su participación en él. Igualmente, puede retirarse del proyecto en cualquier momento sin que eso lo perjudique en ninguna forma. Si alguna de las preguntas durante la entrevista le parecen incómodas, tiene usted el derecho de hacérselo saber al investigador o de no responderlas.

Acepto participar voluntariamente en esta investigación, conducida por la Universidad de Deusto. He sido informado (a) de que la meta de este estudio es, principalmente, analizar los puntos de vista y la percepción de los gestores de centros especializados, presidentes de asociaciones y usuarios con alguna discapacidad, atendiendo especialmente a estándares internacionales.

Me han indicado también que tendré que responder cuestionarios y preguntas en una entrevista, lo cual tomará aproximadamente 30 minutos.

Reconozco que la información que yo provea en el curso de esta investigación es estrictamente confidencial y no será usada para ningún otro propósito fuera de los de este estudio sin mi consentimiento. He sido informado de que puedo hacer preguntas sobre el proyecto en cualquier momento y que puedo retirarme del mismo cuando así lo decida, sin que esto acarree perjuicio alguno para mi persona. Me han informado que podré formular cualquier pregunta sobre el estudio al investigador Mohammad Al-Rashaida, llamando al teléfono 944 13 90 00 (extensión 2069) o remitiendo un correo electrónico a [mrashaida@opendeusto.es](mailto:mrashaida@opendeusto.es)

He leído esta información anterior y estoy de acuerdo en participar en este proyecto.

Fecha:

Nombre

Firma

## Appendix F

### Letter Contact with Panel Experts

Estimado profesor:

Mi nombre es Mohammad al-Rashaida, soy psicopedagogo y actualmente estoy realizando un estudio que se inscribe en el marco de la Tesis Doctoral que estoy desarrollado en la Universidad de Deusto. El tema de mi investigación se titula “el alcance de la aplicación de los patrones de adaptación profesional e inserción laboral entre personas con discapacidad en el País Vasco”.

Los principales objetivos del estudio son:

- Examinar el alcance de la aplicación de los criterios de adaptación profesional e inserción laboral internacional en las asociaciones que ofrecen estos servicios del País Vasco desde la perspectiva de los gerentes y los usuarios.
- Este estudio también tuvo como objetivo crear un instrumento válido y confiable para medir las percepciones de las personas con discapacidad sobre el alcance de la aplicación de las normas internacionales emitidas por el Consejo de Europa (COE) y la Organización Internacional del Trabajo (OIT) en rehabilitación profesional asociaciones en el País Vasco.

Dada su trayectoria y amplio conocimiento en esta materia, le estaría muy agradecido si pudiera cumplimentar el cuestionario que le adjunto en este e-mail, de cara a poder mejorar los criterios de validez y fiabilidad del mismo, previo a su aplicación a la muestra objetivo de este proyecto (gerentes y personas con discapacidad). Para ello, tendrá que juzgar los diferentes dominios que conforman dicho cuestionario, valorando los diferentes ítems y contenidos del mismo, en términos de relevancia, claridad, sencillez y pertinencia. En una escala Likert de 5 puntos (1 = no relevante, 2 = menos relevante, 3 = relevante, 4 = más relevante, 5 = altamente relevante).

Muchísimas gracias por su interés y participación,  
Un cordial saludo,

Mohammad Alrashaida

Faculty of Psychology and Education  
Planta -1, Salas polivalentes 1 y 2 (al lado del Auditorio)  
University of Deusto  
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48007 Bilbao

## Appendix G

### Expert Panel Survey

Items	Nada relevante	Poco relevante	Relevante	Bastante relevante	Muy relevante
<b>Filosofía y objetivos de la asociación</b>					
1. La asociación proporciona servicios siendo esta una responsabilidad social.					
2. La asociación ayuda a personas con discapacidad para alcanzar el máximo grado de autorrealización e independencia.					
3. La asociación ayuda al usuario para conseguir un empleo adecuado.					
4. La asociación proporciona los servicios a personas con discapacidad independientemente del género y/o de la gravedad de la discapacidad.					
5. La asociación ofrece los servicios gratis a personas discapacitadas.					
6. La asociación promueve la integración de personas con discapacidad con aquellas que no la tienen.					
<b>Evaluación y determinación de elegibilidad</b>					
7. La asociación utiliza un modelo específico para la evaluación y determinación de propósitos de elegibilidad.					
8. La asociación ejecuta una entrevista exhaustiva y pertinente con las personas con discapacidad como parte de la evaluación.					
9. La asociación examina el registro de experiencia laboral para personas con discapacidad.					
10. La asociación realiza una evaluación general para la verificación de la capacidad de trabajo de las personas con discapacidad.					
11. La asociación se sirve de la ayuda de equipos multidisciplinares (médico, psicólogo, trabajador social, agente de colocación, y preparador laboral) para la evaluación y determinación de propósitos de					

elegibilidad para las personas con discapacidad.					
12. La asociación emite un informe final de evaluación sobre el estado de las personas con discapacidad y su elegibilidad para recibir servicios.					
<b>Dirección y orientación laboral</b>					
13. El orientador verifica que la persona con discapacidad ha realizado un examen médico para fines de orientación laboral.					
14. El orientador conoce las circunstancias personales y familiares las personas con discapacidad.					
15. El orientador asesora a las personas con discapacidad hacia la profesión adecuada en base al informe de evaluación.					
16. El orientador toma en consideración la voluntad de la persona con discapacidad y los intereses hacia diversas ocupaciones.					
17. El orientador facilita información para las personas con discapacidad sobre el trabajo adecuado y oportunidades de capacitación.					
18. El orientador recomienda a la persona con discapacidad sobre el futuro profesional más adecuado partiendo de sus capacidades y aptitudes.					
19. El orientador establece un itinerario de orientación individualizado para la persona con discapacidad.					
<b>Formación profesional</b>					
20. La asociación proporciona la formación profesional basada en el itinerario de orientación individualizado.					
21. La asociación capacita a la persona con discapacidad en las mismas condiciones que forma a las personas sin discapacidad.					
22. La asociación proporciona la formación profesional para personas con discapacidad en consonancia con sus experiencias pasadas.					

23. La asociación considera que la formación puede no ser necesaria si una persona discapacitada puede trabajar sin la misma.					
24. La asociación capacita a las personas con discapacidad en un ambiente que satisfaga sus necesidades individuales.					
25. La asociación colabora con los empleadores para entrenar a las personas con discapacidad en el trabajo.					
<b>Bolsa de trabajo y seguimiento</b>					
26. La asociación busca un trabajo adecuado para personas con discapacidad.					
27. La asociación tiene en cuenta la cualificación profesional, experiencia laboral y habilidades de las personas con discapacidad a la hora de buscar trabajo.					
28. La asociación se coordina con Lanbide y otros buscadores de empleo.					
29. La asociación contribuye a aclarar la capacidad de trabajo de las personas con discapacidad para los empleadores.					
30. La asociación elimina los obstáculos que dificultan el acceso al empleo de las personas con discapacidad.					
31. La asociación hace seguimiento a las personas con discapacidad después de emplearlos o en los lugares de trabajo a través de las entrevistas, por teléfono o por cualquier otro medio.					
32. La asociación explora la satisfacción laboral de las personas con discapacidad.					
33. Formadores y alumnos se mueven con facilidad dentro de la asociación					
<b>Participación y cooperación con la comunidad</b>					
34. La asociación promueve la acción voluntaria a nivel colectivo e individual para facilitar la colaboración de la gente.					
35. La asociación ofrece los servicios para las personas con discapacidad y en consonancia con los planes nacionales de acción.					

36. La asociación colabora en la elaboración de la legislación sobre la inserción laboral para las personas con discapacidad.					
37. La asociación apoya las actividades que contribuyen a la promoción de la sensibilización sobre la discapacidad.					
38. La asociación se compone de un número suficiente de personal competente para cubrir todas las funciones.					

## Appendix H

### Approval for Conducting the Survey

#### **IMPLEMENTACIÓN DE UN PROYECTO DE INVESTIGACIÓN ORIENTADO AL ANÁLISIS DEL PROCESO DE INSERCIÓN SOCIOLABORAL DE PERSONAS CON DISCAPACIDAD**

Equipo de Investigación Neuro-e-motion de la Universidad de Deusto

El equipo de investigación Neuro-e-motion perteneciente a la Universidad de Deusto está desarrollando un nuevo proyecto orientado a la inserción sociolaboral de personas con discapacidad en la Comunidad Autónoma Vasca.

Nuestro equipo lleva más de una década trabajando intensamente en este ámbito y, en esta ocasión, la propuesta de estudio viene enmarcada por la necesidad de profundizar el modelo vigente atendiendo a criterios internacionales. El objetivo del estudio es, principalmente, analizar los puntos de vista y la percepción de los gestores de centros especializados, presidentes de asociaciones y usuarios con alguna discapacidad, atendiendo especialmente a estándares internacionales.

Dentro del mencionado proyecto, el doctorando Mohammad Al-Rashaida se encarga de liderar dicho estudio. Se abordan, fundamentalmente, tareas asociadas al reclutamiento y recogida de información con ayuda de alguna herramienta (cuestionario) orientado al propósito del trabajo de campo, a responsables de los centros especializados y asociaciones de personas con discapacidad y, por otro lado, a usuarios con discapacidad. El tiempo de implementación se sitúa en torno a los 20 minutos.

La información a obtener será absolutamente confidencial atendiendo a las directrices de la comisión ética de la Universidad de Deusto.

En caso de necesitar alguna aclaración, no dude en ponerse en contacto en la siguiente dirección electrónica:

[mrashaida@opendeusto.es](mailto:mrashaida@opendeusto.es)

Reciba un cordial saludo.

Equipo de Investigación Neuro-e-motion  
Facultad de Psicología y Educación  
Universidad de Deusto  
Avda. Universidades, 24  
48007 Bilbao

## Appendix I Correlations among Items

Correlation Matrix	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Item 21	Item 22	Item 23	Item 24	Item 25	Item 26	Item 27	Item 28	Item 29	Item 30	Item 31	Item 32	Item 33	Item 34	Item 35	Item 36				
Correlation Matrix	1.000																																							
Item 1	1.000																																							
Item 2	.665	1.000																																						
Item 3	.659	.676	1.000																																					
Item 4	.661	.683	.766	1.000																																				
Item 5	.487	.557	.563	.561	1.000																																			
Item 6	.642	.612	.682	.655	.648	1.000																																		
Item 7	.648	.532	.606	.654	.574	.629	1.000																																	
Item 8	.589	.612	.608	.643	.565	.619	.590	1.000																																
Item 9	.543	.487	.532	.554	.374	.491	.523	.607	1.000																															
Item 10	.559	.514	.487	.385	.522	.575	.691	.654	.492	1.000																														
Item 11	.342	.433	.419	.457	.324	.447	.369	.488	.527	.448	1.000																													
Item 12	.426	.409	.412	.443	.329	.379	.410	.408	.458	.477	.476	1.000																												
Item 13	.546	.556	.575	.646	.520	.614	.554	.621	.542	.584	.473	.609	1.000																											
Item 14	.520	.430	.581	.573	.435	.524	.532	.566	.536	.640	.491	.663	.793	1.000																										
Item 15	.524	.509	.479	.516	.466	.527	.537	.599	.534	.647	.448	.534	.707	.747	1.000																									
Item 16	.559	.523	.556	.557	.464	.633	.564	.567	.608	.644	.535	.695	.726	.815	.826	1.000																								
Item 17	.563	.567	.659	.601	.534	.691	.509	.539	.603	.470	.596	.667	.728	.659	.784	1.000																								
Item 18	.423	.435	.407	.561	.447	.584	.595	.519	.513	.570	.533	.704	.703	.647	.726	.669	1.000																							
Item 19	.519	.448	.537	.539	.430	.451	.531	.383	.537	.491	.399	.580	.627	.695	.638	.684	.639	.692	1.000																					
Item 20	.277	.271	.295	.291	.289	.236	.348	.312	.350	.416	.429	.417	.401	.490	.509	.409	.414	.437	.549	1.000																				
Item 21	.335	.435	.382	.442	.512	.418	.512	.490	.338	.558	.471	.479	.567	.497	.619	.528	.563	.526	.570	.522	1.000																			
Item 22	.336	.350	.353	.367	.383	.371	.397	.457	.399	.417	.395	.432	.360	.378	.424	.405	.422	.389	.400	.455	.373	1.000																		
Item 23	.481	.578	.548	.523	.535	.538	.499	.581	.472	.594	.455	.477	.627	.611	.687	.612	.582	.551	.597	.471	.663	.562	1.000																	
Item 24	.360	.409	.342	.430	.457	.437	.518	.456	.342	.495	.489	.405	.441	.452	.510	.465	.362	.535	.471	.292	.628	.493	.621	1.000																
Item 25	.393	.486	.532	.433	.358	.442	.344	.464	.366	.423	.332	.474	.485	.574	.595	.575	.617	.553	.591	.444	.498	.529	.722	.555	1.000															
Item 26	.484	.563	.531	.537	.465	.516	.451	.545	.447	.556	.445	.416	.493	.545	.642	.580	.588	.478	.532	.430	.597	.471	.773	.587	.800	1.000														
Item 27	.535	.472	.554	.534	.433	.624	.515	.567	.652	.491	.537	.457	.625	.624	.566	.666	.607	.591	.566	.366	.495	.522	.673	.558	.611	.671	1.000													
Item 28	.551	.537	.612	.572	.519	.605	.567	.541	.514	.491	.481	.499	.585	.608	.549	.604	.580	.569	.623	.372	.516	.551	.723	.680	.699	.731	.784	1.000												
Item 29	.497	.464	.591	.614	.400	.641	.524	.404	.450	.496	.476	.514	.646	.614	.522	.597	.631	.648	.629	.429	.504	.414	.596	.513	.574	.550	.701	.713	1.000											
Item 30	.469	.428	.411	.491	.485	.495	.545	.533	.400	.575	.482	.484	.595	.551	.640	.561	.540	.598	.571	.465	.650	.605	.764	.623	.596	.642	.661	.668	.655	1.000										
Item 31	.523	.451	.443	.483	.453	.565	.563	.467	.421	.540	.396	.447	.640	.587	.710	.625	.575	.625	.669	.540	.600	.424	.744	.536	.608	.672	.672	.675	.651	.773	1.000									
Item 32	.524	.636	.514	.511	.442	.575	.475	.477	.430	.433	.526	.506	.565	.517	.494	.515	.588	.531	.496	.450	.417	.462	.597	.489	.574	.592	.578	.660	.636	.621	.596	1.000								
Item 33	.448	.476	.473	.489	.508	.389	.470	.553	.508	.501	.494	.509	.593	.527	.580	.465	.480	.487	.535	.558	.476	.672	.512	.483	.596	.514	.596	.511	.629	.633	.642	1.000								
Item 34	.396	.420	.375	.418	.314	.393	.505	.351	.424	.395	.488	.462	.533	.562	.445	.474	.373	.460	.603	.334	.486	.376	.472	.639	.470	.441	.475	.627	.538	.507	.471	.589	.430	1.000						
Item 35	.529	.493	.555	.518	.433	.525	.524	.550	.621	.526	.521	.441	.545	.595	.521	.606	.689	.553	.582	.404	.446	.423	.604	.477	.536	.566	.582	.596	.508	.565	.530	.628	.541	.593	1.000					
Item 36	.469	.402	.518	.529	.300	.499	.515	.395	.348	.448	.447	.415	.543	.569	.505	.518	.490	.506	.565	.438	.462	.402	.598	.436	.450	.534	.528	.573	.643	.606	.628	.675	.524	.524	.569	1.000				

a Determinant = 2,30E-017

## Appendix J

### International VR Standards Survey – Final Version

#### Section one: Demographic Information

Age: \_\_\_\_\_ (completed years)

Gender:  Female                       Male

**What is the highest education level you have achieved?**

**Status of Disability:**

Congenital disabilities                       Acquired disabilities

Do you currently have work?

Yes     No

#### Section Two: The Degree of Application of the Standards

To what extent do you agree or disagree with the following statements?

#### Appendix

Factor One: Job related services	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
30. The association follows up people with disabilities after employing them.					
23. The association trains people with disabilities in an environment that meets their individual needs.					
24. The association cooperates with employers to train people with disabilities in the workplace.					
26. The association considers the professional qualifications of people with disabilities when searching for jobs.					

## Appendix

25. The association seeks suitable jobs for people with disabilities.					
28. The association contributes to clarifying for employers the working capacities of people with disabilities.					
22. The association considers that training may not be necessary if a person with disability can work without it.					
21. The association provides vocational training for people with disabilities commensurate with their past experiences.					
31. The association explores the job satisfaction of people with disabilities.					
33. The association helps people with disabilities to obtain appropriate jobs.					
32. The association examines the work experience records of people with disabilities.					
36. The association carries out overall assessment to verify the working capacity of people with disabilities.					
20. The association trains people with disabilities under the same conditions as able-bodied people are trained.					
27. The association coordinates with job seekers who have a disability.					
34. The association shares in proposing legislation related to job placement for people with disabilities.					
29. The association eliminates obstacles to the employment of people with disabilities.					
<b>Factor Two: Philosophy or aims of VR association</b>					

## Appendix

3. The association provides services for people with disabilities that are consistent with national action plans.					
4. The association provides vocational rehabilitation services to people with disabilities, irrespective of gender and/or disability severity.					
6. The association promotes the integration of people with disabilities within the society.					
1. The association provides vocational rehabilitation services as a social responsibility.					
2. The association helps people with disabilities to achieve the maximum degree of independence.					
8. The association runs inclusive and relevant interviews with people with disabilities as part of the evaluation.					
7. The association utilizes a specific model for the purposes of assessment and to determine eligibility.					
5. The association delivers vocational rehabilitation services to people with disabilities free of charge.					
9. The association promotes voluntary action on a collective and individual level to facilitate the collaboration of the public.					
10. The association has a sufficient number of competent staff to cover all functions.					
<b>Factor Three: Vocational rehabilitation guidance</b>					
14. The counsellor orients people with disabilities toward suitable careers based on the evaluation report.					

**Appendix**

16. The counsellor provides information for people with disabilities on training opportunities.					
18. The counsellor makes individual plans for people with disabilities.					
12. The counsellor verifies that people with disabilities have taken medical examinations for vocational training purposes.					
13. The counsellor investigates the personal and family circumstances of people with disabilities.					
19. The counsellor recommends the most suitable vocational future to people with disabilities based on their capacities.					
15. The counsellor takes into consideration the willingness and interest of people with disabilities towards various occupations.					
<b>Items loaded with less than 0.40 and subsequently deleted</b>					
11. The association is assisted by a multidisciplinary team (doctor, psychologist, social worker, placement officer).					
35. The association supports activities that contribute to the promotion of disability awareness.					
<b>Items with cross-loading</b>					
17. The association provides vocational guidance based on the Individual Vocational Plan.					