



Income Effects of the Vocational Training Programmes for People with Disabilities -Evidence from mainland China

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Abstract

Enhancing the employment opportunities and increasing income for people with disabilities are important to safeguard their economic and social rights, and to build an inclusive society. Investigating the effects of the vocational training programmes for people with disabilities can provide evidence for policymakers and managers to improve the design and delivery of these programmes. The study is based on a large sample size questionnaire survey with 10469 valid responses conducted in June-October 2018 across mainland China. We find that the respondents are more likely to use the skills learned from the programmes to obtain income when the training fits the needs of their jobs. The study also finds that the quantity of training such as the number of training occasions and the duration of training programmes is less important than the quality of training programmes. Managers are advised to devote more efforts to tailoring the content of the vocational training programmes to the needs of employers.

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Keywords

Vocational Training; People with Disabilities; Programme Design; Programme Delivery; Income Effects

Introduction

Increasing the employment opportunities and income for people with disabilities (PwDs) is important to safeguard the economic and social rights of this vulnerable groups, and to build an inclusive society. The goals are challenging to achieve because of: 1) the mismatch between the vocational training programmes for PwDs and the needs of labour markets; 2) incoherent designing and ineffective implementation of such training programmes (England 2003; Kulkami & Kote 2013). Effective vocational training program can help PwDs to compete in the job market, and improve labor market environment for the latter (Kulkami & Kote 2013).

Most studies have focused on the effects of vocational training on the employment chance rather than the quality of employment for the disabled trainees (e.g. Aakvik 2003; Vlachou, Roka & Stavroussi 2021). Statistical studies about the effects of vocational training programmes on PwDs in China are lacking¹ although there is empirical analysis about the effectiveness of China's policies to support the employment of PwDs (e.g., Liao 2015, 2021). A national survey conducted in 2012 showed that vocational training could increase the employment rate of PwDs (Liao, 2014).

The study is based on a large sample size questionnaire survey conducted in June-October 2018 across mainland China. It contributes to the literature by investigating the income generation effects of the vocational training programmes for PwDs, a topic rarely researched so far.

The study seeks to answer the following research questions:

- 1) To what extent do vocational training programmes help disabled people to obtain income?
- 2) What factors, such as design and delivery of the training programmes, explain the income generation effects for the disabled trainees?

The study will first introduce the institutional and policy context of China's vocational training programme for PwDs. It will then propose three hypotheses based on the previous studies, and describe the survey method and questionnaire design. Then the paper will present the results of statistical analysis that tests the hypotheses. Finally, the theoretical and practical implications of the findings will be discussed.

Institutional and Policy Context

During the 1950s-1970s, China's welfare-based vocational training regime for PwDs had limited service scope and a low level of regulatory and financial support from the state. Since the 1980s, the regime has evolved to a rights-based one with expanded service scope and enhanced regulatory and financial support from the state. The delivery mode of the vocational training has been diversified, often involving private institutions (Liu, 2018). The *Law on the Protection of the Disabled Persons* enacted in 1990 pledges to ensure the equal rights of PwDs in the political, economic, cultural, social, family. and other aspects of their lives, and specifies measures to encourage employment and self-employment of disabled people (Order of the President of the People's Republic of China, 2008).

The China Federation of the Disabled People (CFDP), a government-sponsored mass organisation, established in 2002 Employment Service and Administration Centres (ESACs) for the disabled to plan and implement vocational training programmes, carry out policy research, provide information technology support, and formulate vocational and sectoral standards, policies and regulations (CDPES, 2022). The CFDP and its local branches also established 133 vocational middle schools/classes for disabled students. The Education Ministry sponsored programmes in Special Education for the Disabled to provide qualified teachers. By 2018, there had been 500 training centers recognised by the CFDP and 350 ESACs recognised by the provincial federations of disabled people (State Council Press Office, 2019).

China has established policies since the 1990s that an employing organisation is required to hire 1.5% of total staff from PwDs, or make a contribution to the employment security fund for the disabled. The fund is used to subsidise the vocational training, living expenses, and additional expenses incurred due to the employment of disabled persons.² The Ministry of Human Resource and Social Security, the Ministry of Finance, and the CFDP

¹ Except one recent study published in Chinese about the learning effects of vocational training programmes on satisfaction and the income of PwDs (Liu, Liu & Fang, 2021).

² Small and medium enterprises hiring fewer than 30 are exempted. National Development and Reform Commission et al.

coordinated to formulate the vocational training policy. The policy emphasises that vocational training programmes should be designed according to the diverse needs and characteristics of PwDs, and the needs of labour markets, so as to enhance the employment chances of PwDs. The policy encourages vocational schools, enterprises, and vocational training agencies to design the training programmes according to the needs of employers and job positions. The policy also pledges to purchase vocational training services from private training agencies and employers so as to increase the number of training programmes and trainees (MHRSS, MF and CFDP 2013).

China's transition from a planned economy to a market economy has brought challenges for many welfare enterprises, which hired large percentages of disabled persons, while they now face fierce competition in the global market (Liao, 2015). The government has adopted tax concession policies to motivate enterprises to hire more disabled people since 2007 (MoF and STA, 2007; MoF and STA, 2016). The number of disabled people who are employed in various forms increased from 8,960,000 in 2014 to 9,484,000 in 2018³. However, the overall employment rate of PwDs remains low. In 2019, the average employment rate of disabled people in mainland China is 56% (aged between 16-54) (China News Net, 2019).

Literature Review and Hypotheses

The educational level, employment rate, and income of disabled people in mainland China has been steadily increasing over the years, but the change has been unequal among people of different types of disabilities and areas (Shi & Wang, 2013). A national survey of PwDs in mainland China shows that being male, older, and married increases the chances of being employed; having visual, hearing, speech, and physical disabilities increases the chances of being employed; while having mental and intelligence disabilities decreases the chances of being employed (Liao, 2014). Liu et al. (2021) found from a national survey of 725 responses that the type of disability and age have impact on the trainees' feelings about the training course, the extent of knowledge and skill acquisition, and the benefits the trainees obtain from the training course. We propose:

- Hypothesis 1: Type of disability, controlling for age, has effects on the income generation of the vocational training programme.

Disabled people who are unemployed are likely to be psychologically vulnerable (Bartelink et al., 2020). Employment training programmes can help them build self-confidence and practical skills to compete in the job market (Sally et al., 2012). Liu et al. (2021) find that the employment status affects the effectiveness of the training course. We propose:

- Hypothesis 2: Controlling for age and type of disability, disabled people who are unemployed are more likely to use skills learned in the training course to obtain income.

Vocational training programmes that match the skills of the disabled people with the needs of labour markets can improve their access to employment opportunities (Kett, 2012). Targeted job-related training services with employers' engagement can enhance the employment chances of disabled people (Kulkami & Kote, 2013). We propose:

- Hypothesis 3: When the content of the vocational training programme is related to the current jobs of the PwDs, the PwDs are more likely to use the skills learned in the training courses to obtain income.

Method of Data Collection

This study uses part of a cross-sectional convenient survey sample collected through vocational training agencies located in 31 provinces in mainland China during June-October 2018. The questionnaire was disseminated through an online website (www.wjx.cn) to disabled people's mobile App Wechat. The questionnaire was distributed to the cell phones of the disabled people who responded with the assistance of software and their caregivers. The survey

³ 2019. China Statistical Yearbook on the Work for Persons with Disabilities. Table 3-1.

received 11,296 responses. The respondents were located in 31 provincial administrative areas. This survey method excludes those who are not accessible to cell phones and internet services, particularly in remote rural areas.

The questionnaire used for analysis is developed based on the previous studies (Kett, 2012; Kulkarni & Kote, 2013; Liao, 2014; Sally et al., 2012) and the direct observations of one author. It contains 32 questions, all but one are close-ended (see Appendix I). The closed-ended questions measure the following aspects of the vocational training programmes:

- 1) Experiences of respondents participating in the vocational training programmes;
- 2) Respondents' information sources of the vocational training programmes;
- 3) Characteristics of the vocational training programmes such as content, duration, barrier-free facilities, difficulties, whether providing accommodation, and on-the-job training;
- 4) Effects of the vocational training programmes: Whether respondents are satisfied with the training content, whether respondents learned skills, whether respondents obtained income related to the training content;
- 5) Employment status of the respondents: employment sector, type of employment, whether the current job is related to the content of the training programme;
- 6) Personal characteristics of the respondents: age, gender, provincial areas, rural/urban areas, education level, type of disabilities, seriousness of disabilities, income level.

We also collected statistics that reflect the differences in terms of economic development and public service expenditure across provinces and regions. We use the linear regression model to test the effects of these factors on the self-reported capability of the respondents to use the skills learned in the training courses to increase their income. To compare different kinds of variables, we use the Zscore of each variable in the regression analysis. Zscore of the variable describes the position of a raw score in terms of its distance from the mean and is measured in standard deviation units.⁴

Results

The analysis is conducted with SPSS27, a statistical software developed by IBM company. Altogether there are 10,469 valid responses from disabled people.⁵ According to Table 1, the employment rate of respondents is 72.3%, higher than the average rate reported by the government; policy-mandated employment in proportion, self-employment, and public welfare jobs are three types of jobs that provide more employment chances for PwDs.

⁴ By Saul McLeod, 2019. <https://www.simplypsychology.org/z-score.html>.

⁵ We filtered out respondents who reported they never participated in the vocational training subsidised by the CFDP.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. Employment in proportion	1,441	13.8	19	19.0
	2. Concentrated employment	419	4.0	5.5	24.6
	3. Self-employment	1,084	10.4	14.3	38.9
	4. Community-based employment	935	8.9	12.3	51.2
	5. Public welfare jobs	1,961	18.7	25.9	77.1
	6. Supported employment	164	1.6	2.2	79.3
	7. Home-based employment	340	3.2	4.5	83.8
	8. Agriculture, plantation and aquaculture	715	6.8	9.4	93.2
	9. Others	512	4.9	6.8	100.0
	Total	7,571	72.3	100.0	
Missing	System	2,898	27.7		
Total		10,469	100.0		

Table 1 – Frequency of Employment Type

Source: Author

According to Table 2, 80.4% of respondents are satisfied with the content of the training programmes. Nevertheless, when asking the respondents to what extent they have mastered the skills taught by the training programmes, most people choose ‘relatively masterful’ or ‘just so so’. This shows that the effectiveness of the vocational training programmes varies when we adopt different measurement (satisfaction with the training or being masterful of the skills).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1. Employment in proportion	1,820	17.4	17.4	17.4
	2. Concentrated employment	4,860	46.4	46.4	63.8
	3. Self-employment	3,214	30.7	30.7	94.5
	4. Community-based employment	457	4.4	4.4	98.9
	5. Public welfare jobs	118	1.1	1.1	100.0
		Total	10,469	100.0	100.0

Table 2 – Frequency of being Masterful of Training Content

Source: Author

We choose Zscore (Post Training Income) to be the dependent variable, namely to what extent the respondents’ income is related to the skills learned in the training course. This is because the policy objective of the vocational training programmes for PwDs is to improve the disabled people’s livelihoods and protect their employment rights.⁶

⁶ Office of Human Resource and Social Security Ministry and China Federation of the Disabled Persons. Plans to Improve Vocational Skills of the Disabled Persons (2016-2020) http://www.gov.cn/xinwen/2016-06/22/content_5084274.htm.

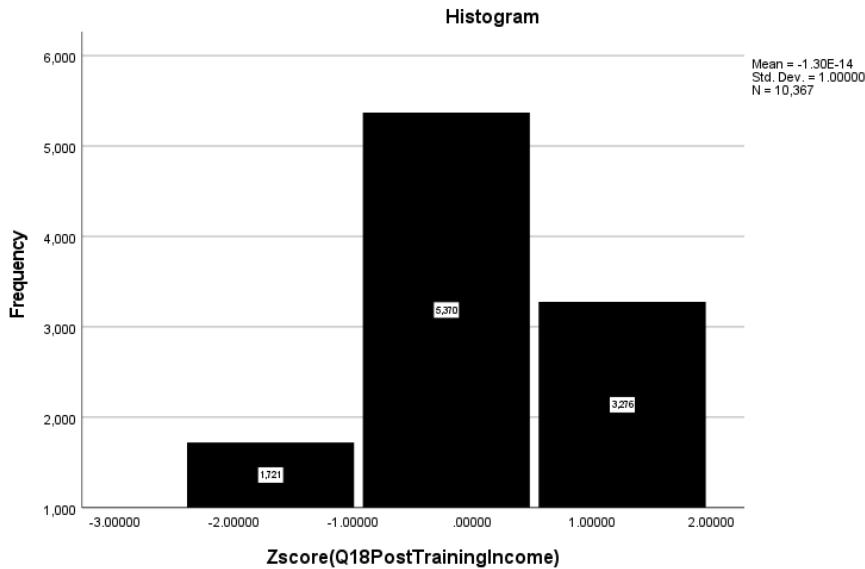


Figure 1 Distribution of Zscore (Post Training Income)

Source: Author, based on SPSS 27

Legend

1. All of my income is related to the skills I learned in the training course
2. Part of my income is related to the skills I learned in the training course
3. My income is not related to the skills I learned in the training course

According to Figure 1, 16.6% and 51.8% of respondents reported all and part of their income was related to the skills he/she learned in the training course, respectively. The Skewness measure of Zscore (*Post Training Income*) is -0.193, indicating the data is moderately skewed. The approximately normal distribution of Zscore (*Post Training Income*) enables us to use linear regression model after standardising the explanatory variables.

- Hypothesis 1: Type of disability, controlling for age, has effects on the income generation of the vocational training programme.

We tested hypothesis 1. According to Table 3, the two independent variables, namely *Zscore (Age)* and *Zscore (Type of Disability)*, have statistically significant and negative impact on their capability to use skills learned in the training course to obtain income. The older the respondent is, the less likely he/she obtains income from the skills learned in the training course. The respondent who has a disability in hearing is less likely to obtain income from the skills learned in the training course than the respondent who has a disability in vision. The same applies to those who have a speech disability, physical disability, intelligence disability, mental disability, or multi-type disabilities in sequence. For instance, the respondent who has a speech disability is less likely to obtain income from the skills learned in the training course than one who has a disability in hearing. The respondent who has multi-type disabilities is least likely to obtain income from the skills learned in the training course among all. However, the co-efficient beta of *Zscore (Type of Disability)* in Model 1 is very small.

	Standardised coefficient Beta
Constant	0.000
Zscore (Age)	0.071*
Zscore (Type of Disability)	0.028*
Adjusted R2	0.006

Table 3 – Age and Type of Disability (Model 1)

Source: Author

Notes:

Dependent variable: Zscore (Post Training Income)

*p<0.01 (SPSS 27)

This result is partly consistent with that of the previous national survey in China: having vision, hearing, speech, or physical disabilities are more likely to be employed, while having mental or intelligence disabilities are less likely to be employed.

Nevertheless, this result is not consistent with the previous finding that older PwDs are more likely to be employed (Liao, 2014). We found that the older PwDs are less likely to obtain income from the skills learned in the training course.

The adjusted R2 of Model 1 is very low, indicating that the explanatory power of the model is limited. To find out whether the correlations between Zscore (Age), Zscore (Type of Disability) and Zscore (Post Training Income) are confounded by PwDs' employment status, we tested hypothesis 2.

	Standardised coefficient Beta
Constant	0.000
Zscore (Employment Status)	0.219*
Zscore (Type of Disability)	0.013
Zscore (Age)	0.078*
Adjusted R ²	0.053

Table 4 – Age, Type of Disability and Employment Status (Model 2)

Source: Author

Note: *p<0.01 (SPSS 27)

- Hypothesis 2: Controlling for age and type of disability, disabled people who are unemployed are more likely to use skills learned in the training course to obtain income.

According to Table 4, after controlling for the variable *Zscore (Employment Status)*, the variable *Zscore (Type of Disability)* no longer has statistical significant co-efficient Beta vis-à-vis *Zscore (Post-Training Income)*. The Pearson correlation co-efficient between *Zscore (Type of disability)* and *Zscore (PostTrainingIncome)* is only 0.03. *Zscore (Age)* still has statistically significant co-efficient Beta vis-à-vis *Zscore (Post-Training Income)*. We also found multi-collinearity between *Zscore (Employment Status)* and *Zscore (Type of Disability)*. The results show that the respondents who are employed and younger are more likely to use skills learned in the training course to obtain income. Again, the findings about age are not consistent with those of the previous survey (Liao 2014).

- Hypothesis 3: When the content of the vocational training programme is related to the current jobs of the PwDs, the PwDs are more likely to use the skills learned in the training courses to obtain income.

To test Hypothesis 3, we first conducted Pearson correlation analysis between *Zscore (Post Training Income)* and *Zscore (Relevance of Training Content with the Current Job)*. The coefficient statistics is 0.601, which is very high. We

also conducted Pearson correlation analysis between other variables and *Zscore (Post Training Income)*. In the Appendix II, we list all the Pearson correlation statistics and identify 10 variables that have correlation co-efficient Beta larger than 0.1. ⁷These 10 variables are included in the regression analysis (see Table 5). Apart from *Zscore (Relevance of training content)*, which is the focused explanatory variable of H3, we include in Model 3 other explanatory variables such as *Zscore (Mastering Training Content)*, *Zscore (Training Meet Expectation)*, *Zscore (Satisfaction with Training Content)*, *Zscore (Satisfaction with Barrier-free Environment of the Training)*, *Zscore (Programme providing Accommodation)*, *Zscore (Programme providing On-the-job Training)*, *Zscore (Employment Status)*, *Zscore (Number of Organisations whose Training having Participated In)*, *Zscore (Attitude towards Training Duration)*.

	Standardised coefficient Beta
constant	-0.000
Zscore (Relevance of Training Content with the Current Job)	.516*
Zscore (Mastering Training Content)	0.085*
Zscore (Training Meet Expectation)	.071*
Zscore (Satisfaction with Training Content)	.016
Zscore(Satisfaction with Barrier-free Environment of the Training)	.016
Zscore (Programme providing Accommodation)	.075*
Zscore (Programme providing On-the-job Training)	.029*
Zscore (Employment Status)	.013
Zscore (Trans8 Number of Organisations whose Training having Participated In)	-.031*
Zscore (Attitude towards Training Duration)	-0.001
Adjusted R ²	0.393

Table 5 –Relevance of the Training Content and Other Variables (Model 3)

Source: Author

Note: *p<0.01 (SPSS 27)

The VIF and collinearity diagnostics test show that there are no collinearity problems among the explanatory variables listed in Table 5.

The regression results of Model 3 confirm Hypothesis 3. The adjusted R² of Model 3 is 0.393, indicating that Model 3 has more explanatory power than Model 2 and Model 1.

After controlling variables such as *Zscore (Mastering Training Content)*, *Zscore (Training Meets Expectation)*, *Zscore (Programme providing Accommodation)*, *Zscore (Programme providing On-the-job Training)*, and *Zscore (Number of Organisations whose Training having Participated In)*, we find that *Zscore (Relevance of Training Content with the Current Job)* has positive and statistically significant impact on PwDs' ability to use the skills learned in the training course to obtain income. In addition, the magnitude of the impact is the largest among all explanatory variables listed in Table 5.

While the age of trainees has statistically significant impact on the income generation effect of the training programmes, the magnitude of the impact is relatively small in Model 1 and Model 2. In fact, the Pearson correlation co-efficient between *Zscore (Age)* and *Zscore (Post Training Income)* is only 0.072.

Conclusion and Discussion

The study finds that the majority of the respondents (68.4%) obtain all or part of their income using skills they learned in the training course, showing that the vocational training programmes subsidized by the CFDP and its

⁷ Other explanatory variables that have statistically significant (at the 0.01 level) co-efficient with the *Zscore (Post Training Income)*, but are not included in Model 3 due to small co-efficient values (<0.1) are as follows: *Zscore (Age)*, *Zscore (Type of Disability)*, *Zscore (Training Times)*, *Zscore (Training Duration)*, *Zscore (Post Training Job Change)*, *Zscore (Type of Employment)*, *Zscore (Employment Sector)*, *Zscore (Recent Training Subject)*, *Zscore (Recent Training Year)*, *Zscore (Annual Income)*, *Zscore (Trans Training Information)*, and *Zscore (Training Purposes)*. see Appendix II.

⁸ This Zscore is calculated from the nature log transformation of the original value.

branches are somewhat effective in this aspect. The findings are consistent with previous national surveys (Liao, 2014; Liu et al., 2021).

Model 3 finds a major factor that explains the income generation effects of the vocational training programme: the relevance of the training programme to the current jobs of PwDs. In other words, the more related the content of the training course is to the current job of the respondent, the more likely all his/her income is related to the skills learned in the training course. This finding is consistent with those of the previous studies: targeted job-related training services can improve employment opportunities of the disabled people (Kulkarni & Kote, 2013); vocational training programmes that help PwDs build practical skills enable them to compete in the job market (Sally et al., 2012); vocational training programmes that meet the skill requirements of the labour market improve PwDs' access to employment opportunities (Kett, 2012).

This factor, *Zscore (Relevance of Training Content with the Current Job)*, could be the intervening step that links *Zscore (Employment Status)* to *Zscore (Post Training Income)* in Model 2. In other words, the respondent who is employed when conducting the questionnaire is more likely to obtain all of his/her income from the skills learned in the training course, probably because the training content is relevant to their current job. This mechanism is consistent with some of the responses to the open-ended question No.32.⁹

"The training must be designed to fit [the requirements of] the practice and employment. Learning will then be purposeful." (Respondent No. 56¹⁰)

"The training content shall be more relevant. Avoid being superficial." (Respondent No. 117¹¹)

Other statistically significant explanatory factors in Model 3 include *Zscore (Mastering Training Content)*, *Zscore (Training Meeting Expectation)*, *Zscore (Programme Providing Accommodation)*, *Zscore (Programme Providing on-the-job Training)*, *Zscore (Number of organisations whose training having participated in)*.

In other words, the more skillfully the respondent has mastered the training content, the more likely all his/her income is related to the skills learned in the training course. When the training programme meets the expectation of the respondent; when it provides accommodation; when it organizes on-the-job training, it is more likely that all of the respondent's income is related to the skills learned in the training course. While these factors' standardised co-efficient Beta are small, some of the findings are consistent with those of the previous studies: on-the-job training helps the disabled trainees adapt to the work environment (Vlachou, Roka, & Stavroussi, 2021); financial support for shelter and transportation has positive effects on the employment outcome of the training programme (Dutta et al., 2008).

It is interesting that when the respondent has attended the training programmes organised by a fewer number of training providers (other than the CFDP), it is more likely that all of his/her income is related to the skills learned in the training course. This result might be caused by the biased sampling process. The result might also indicate that CFDP is better at providing effective training programmes to the PwDs than other government-affiliated or private organizations in China.

Model 3 finds statistically significant yet weak association between *Zscore (Age)*, *Zscore (Type of Disabilities)*, and *Zscore (Post Training Income)* (Appendix II). These findings are somewhat consistent with those of the previous studies (e.g., Aakvik, 2003; Liao, 2014), which have found that the two factors are important for PwDs to benefit from vocational training and labour market participation. We recommend the design of the training programme takes into account the various training needs of PwDs of different ages and types of disabilities.

The statistically significant but weak association between *Zscore (Types of Employment)*, *Zscore (Employment sector)*, *Zscore (Recent Training Subject)*, and *Zscore (Post Training Income)* suggests that the employment chances and income earning opportunities for PwDs vary according to the sectors, skill/expertise areas, and forms of employment (Appendix II). We recommend that the design of vocational training programmes takes into account the diverse training needs of different employment sectors, employment types, and skill/expertise areas.

⁹ What are your expectations and suggestions for the employment training programmes organised by the *Federation of the Disable Persons*?

¹⁰ This respondent reported that he/she is employed, part of his/her income is related to the skills learned in the training course, and his/her current job is partly related to the content of the training course.

¹¹ *ibid.*

Model 3 finds that the following variables do not have statistically significant effects on the Zscore (Post Training Income): Zscore (Satisfaction with Training Content), Zscore(Satisfaction with barrier-free Environment of Training), and Zscore (Attitude towards Training Duration). The findings imply that vocational training programme managers need not place too much effort on improving trainees' subjective evaluation in these three aspects of the programme if the managers aim to improve the trainees' capability to generate income through training.

The findings suggest that the quantity of training such as the number of training occasions and the duration of the training programme is less important than the quality of the training programme in terms of its relevance to the job needs. Managers of vocational training programmes are recommended to devote more efforts to tailoring the training content to the needs of employers.

The statistically significant but weak association between *Zscore (Annual Income)*, *Zscore (Training Information Sources)*, *Zscore (Training Purposes)* and *Zscore (Post Training Income)*, suggest that the current vocational training programmes for the PwDs benefit trainees who are more socially connected, more motivated to learn, and have higher income. This finding might be because the survey self-administered by the CFDP has drawn respondents who are less vulnerable and more resourceful. Vocational training programme managers are suggested to promote the programme so as to reach PwDs who are more isolated, less motivated to learn and to join the job market, and have lower income.

The study has several limitations. First, as mentioned, the survey was mainly administered by the CFDP staff and the responses may over-estimate the positive income generation effects of the vocational training programmes due to the social desirability effects. Second, the sample is not representative of the population of PwDs, and probably underrepresents those who have no access to mobile phone and internet services. Third, the extent to which the respondent's income is related to the skills learned in the training course is self-reported by the respondent and might not be accurate. Moreover, different training courses might take varied length of time to have impact on trainees' income. There are other environmental factors such as economic situations that might affect the trainees' capability to use skills learned in the training course to obtain income. Future surveys are suggested to collect such information.

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Appendix I: Questionnaire

Q1. Who are you? (Choose one answer only)

Options:

1. The disabled person
2. Staff in employment service agency
3. Responsible official in the training base

Q2. Have you participated in the employment training programs organized by the Federation of the Disabled Persons before? (Choose one answer only)

Options:

1. Yes
2. No

Q.3 How many times have you participated in the employment training programs organized by the Federation of the Disabled Persons?(Choose one answer only)

Options:

1. 1
2. 2
3. 3
4. More than 3 times

Q.4 Other than the employment training programs organized by the Federation of the Disabled Persons, have you participated in the programs organized by other agencies?(You can choose more than one answer)

Options:

1. No
2. Organized by the Women's Federation
3. Organized by the Communist Youth League
4. Organized by the Federation of Trade Unions
5. Organized by Social organizations
6. Organized by Business companies
7. Organized by Other agencies

Trans Q4 How many organizations' training programs have you attended?

Meaning of values:

- Value 1: the respondent only attended the employment training organized by the Federation of the Disabled Persons (FDP)
- Value 2: the respondent attended the employment training organized by the FDP and another organization
- Value 3: the respondent attended the employment training organized by the FDP and 2 other organizations
- Value 4: the respondent attended the employment training organized by the FDP and 3 other organizations
- Value 5: the respondent attended employment training organized by the FDP and 4 other organizations
- Value 6: the respondent attended employment training organized by the FDP and 5 other organizations
- Value 7: the respondent attended employment training organized by the FDP and 6 or more other organizations

Q.5 What is/are your main source(s) of training information? (Can choose more than one answer)

Options:

1. Relatives and friends
2. Local Federation of the Disabled Persons
3. Community being located
4. Training Agency
5. Newspaper or Television
6. Internet
7. Others

Trans Q5 How many different sources from which you obtain the training information?

Meaning of values:

1. the respondent obtained the training information from 1 source
2. the respondent obtained the training information from 2 sources
3. the respondent obtained the training information from 3 sources
4. the respondent obtained the training information from 4 sources
5. the respondent obtained the training information from 5 sources
6. the respondent obtained the training information from 6 sources
7. the respondent obtained the training information from 7 or more sources

Q.6 (Recoded) What was the last time you attended the employment training organized by the Federation of the Disabled Persons?(Choose one answer only)

Options:

1. 2018
2. 2017
3. 2016
4. 2015
5. 2014
6. 2013
7. 2012
8. 2011
9. 2010
10. before 2010

Q.7 What subject of training organized by the Federation of the Disabled Persons did you attend last time? (Choose one answer only)

Options:

1. Computer Operation
2. Massage and health care
3. Handcraft, sewing and crafts making
4. Electric work, welding work and numerical control
5. Repairing
6. Cooking and baking
7. Agriculture and farming
8. Hairdressing, Cosmetology and nail-dressing
9. Housekeeping and hotel services
10. Clothing production
11. Design
12. Business Start-up
13. Nursing and rehabilitation

14. E-Commerce
15. E-assembly and application
16. Processing and packaging
17. Financial accounting
18. Others

Q8. How long was the training? (Choose one answer only)

Options:

1. fewer than 3 days
2. 1 week
3. 2 weeks
4. 3 weeks
5. 1 month
6. 1-3 months
7. more than 3 months

Q9. Is there any accommodation provided by the training? (Choose one answer only)

Options:

1. Yes
2. No

Q10. Did the training program organize on-the-job training (in addition to academic training)? (Choose one answer only)

Options:

1. Yes
2. No

Q11. Have you mastered the training content skillfully? (Choose one answer only)

Options:

1. Very skillfully
2. Relatively skillfully
3. Averaged skillfully
4. Not very skillfully
5. I did not master any skills at all

Q12. What do you think about the duration of the training course? (Choose one answer only)

Options:

1. The training duration is too short
2. The training duration is fair
3. The training duration is a bit long

Q13. What do you think about the difficulty of the training? (Choose one answer only)

Options:

1. It is quite difficult
2. Fair
3. It is not so difficult

Q14. What do you think about the training content? (Choose one answer only)

Options:

1. Satisfied
2. half-half

3. Not Satisfied

Q15. What do you think about the barrier-free environment of the training? (Choose one answer only)

Options:

1. Satisfied
2. half-half
3. Not Satisfied

Q16. Did the training meet your expectation? (Choose one answer only)

Options:

1. It met my expectation
2. It basically met my expectation
3. It did not meet my expectation

Q17. What is the main purpose of my training? (Can choose more than one answer)

Options:

1. Improve and learn skills
2. Expand social circle
3. Cultivate habit and interest
4. Enjoy the subsidy
5. To get working opportunity
6. Others

Trans Q17. How many different purposes do you have to attend the training?

Meaning of values:

- Value 1: the respondent has 1 purpose to attend the training
- Value 2: the respondent has 2 different purposes to attend the training
- Value 3: the respondent has 3 different purposes to attend the training
- Value 4: the respondent has 4 different purposes to attend the training
- Value 5: the respondent has 5 different purposes to attend the training
- Value 6: the respondent has 6 or more different purposes to attend the training

Q18. Have you been able to obtain income by using the skills you learned in the training course? (Choose one answer only)

Options:

1. All of my income is related to the skills I learned in the training course
2. Part of my income is related to the skills I learned in the training course
3. My income is not related to the skills I learned in the training course

Q19. Is your current job related to the content of the training course? (Choose one answer only)

Options:

1. Totally related
2. Partly related
3. Not related

Q20. Are you employed now? (Choose one answer only)

Options:

1. Yes
2. No

Q21. After the training, how often do you change your job? (Choose one answer only)

Options:

1. Never
2. Seldom
3. Always

Q22. Which type of employment are you in now? (Choose one answer only)

1. Employment in proportion (government organization, social organizations, enterprises and public service units, urban and rural collective economic organizations)
2. concentrated employment (welfare enterprises, industrial and medical treatment agencies, health care and massage agencies employing the blind, medical massage agencies)
3. Self-employment (obtaining labor income or business income through independent production and business activities)
4. Community employment (the form of employment that helps the disabled persons to obtain income through labor. They are run by individuals or is run by the Disabled Persons Federation and the community agency, with the support of the village committee, neighborhood committee, street and other grass-roots employment service organizations)
5. Public welfare jobs (urban public management and non-profit service jobs concerning residents' interests, including maintenance of public facilities that are invested and built by the government at all levels, community security, cleaning, gardening, parking management in urban areas)
6. Supported employment (a form of employment aimed at improving the working skills and physical condition of persons with mental, intellectual and severe disabilities , who are unable to enter the competitive employment market due to their insufficient capacity for employment)
7. Employment at home (informal employment in which income is obtained by working at home)
1. 8.Plantation and Aquaculture in rural areas (plantation, Aquaculture and processing industry using local rural resources)
8. Others

Q23. Which sector are you working in? (Choose one answer only)

1. Agriculture, forestry, animal husbandry and fishery
2. Mining
3. Manufacturing
4. Electricity, heating, gas and water production and supply
5. Construction
6. Wholesale and retail
7. Transportation, warehousing and postal services
8. Accommodation and catering
9. Information transmission, software, and information technology services
10. Leasing and business services
11. Household services, repairs and other services
12. Education
13. Health and social work
14. Culture sports and entertainment
15. Public management, Social security and social organizations
16. Massage
17. E-Commerce
18. Others

Q24. Gender (Choose one answer only)

1. Male
2. Female

Q25. Age (Fill in the blank)_____

Q26. Located province (Choose one answer only)

1. Beijing
2. Tianjin
3. Hebei Province
4. Shanxi Province
5. Inner Mongolia Autonomous Region
6. Liaoning Province
7. Jilin Province
8. Heilongjiang Province
9. Shanghai
10. Jiangsu Province
11. Zhejiang Province
12. Anhui Province
13. Fujian Province
14. Jiangxi Province
15. Shandong Province
16. Henan Province
17. Hubei Province
18. Hunan Province
19. Guangdong Province
20. Guangxi Zhuang Autonomous Region
21. Hainan Province
22. Chongqing
23. Sichuan Province
24. Guizhou Province
25. Yunnan Province
26. Tibet Autonomous Region
27. Shanxi Province
28. Gansu Province
29. Qinghai Province
30. Ningxia Hui Autonomous Region
31. Xinjiang Uygur Autonomous Region

Q27. What is your type of household registration? (Choose one answer only)

1. Rural Area
2. Urban Area

Q28. What is your education level? (Choose one answer only)

1. Below primary school
2. Primary school
3. Junior high school
4. High schools (Technology College, Vocational High and Middle Schools)
5. Vocational Higher Education
6. University degree or above

Q29. What is your type of disability? (Choose one answer only)

1. Eyesight
2. Hearing
3. Language

4. Body parts
5. Intelligence
6. Mental Health
7. Multiple disabilities

Q30. What is your level of disability? (Choose one answer only)

1. Level 1 (most serious)
2. Level 2
3. Level 3
4. Level 4 (least serious)

Q31(Recoded). What is your average annual income in the past year?(including salary, allowance, investment, part-time job and other form of income) (Choose one answer only)

1. No income
2. 10,000 - 20,000 CNY
3. 20,000 - 40,000 CNY
4. 40,000 - 60,000 CNY
5. 60,000 - 80,000 CNY
6. 80,000 - 10,000 CNY
7. 10,000 or above CNY

Q32. What are your expectations and suggestions for the employment training programs organized by the Federation of the Disable Persons? (Fill in the blanks)_____

Appendix II – Correlations between the explanatory variables and the dependent variable

		Zscore(Q18PostTrainingIncome)
Zscore(Age)	Pearson Correlation	.072**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Type of Disability)	Pearson Correlation	.030**
	Sig. (2-tailed)	0.002
	N	10367
Zscore(Employment Status)	Pearson Correlation	.217**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Relevance of Training Content with the Current Job)	Pearson Correlation	.601**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Training Times)	Pearson Correlation	-.080**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Training Duration)	Pearson Correlation	-.023
	Sig. (2-tailed)	0.021
	N	10367
Zscore(Program providing Accommodation)	Pearson Correlation	.174**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Program providing On-the-job Training)	Pearson Correlation	.160**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Mastering Training Content)	Pearson Correlation	.337**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Attitude towards Training Duration)	Pearson Correlation	-.101**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Training Difficulty)	Pearson Correlation	-0.002
	Sig. (2-tailed)	0.801
	N	10367
Zscore(Satisfaction with Training Content)	Pearson Correlation	.220**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Satisfaction with Barrier-free Environment of the Training)	Pearson Correlation	.192**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Training Meet Expectation)	Pearson Correlation	.321**
	Sig. (2-tailed)	0.000

	N	10367
Zscore(Post Training Job Change)	Pearson Correlation	-.037**
	Sig. (2-tailed)	0.001
	N	7518
Zscore(Types of Employment)	Pearson Correlation	.027*
	Sig. (2-tailed)	0.021
	N	7518
Zscore(Employment Sector)	Pearson Correlation	.065**
	Sig. (2-tailed)	0.000
	N	7518
Zscore(Recent Training Subject)	Pearson Correlation	.020*
	Sig. (2-tailed)	0.039
	N	10367
Zscore(Recent Training Recoded)	Pearson Correlation	.059**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Annual Income Recoded)	Pearson Correlation	-.070**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Trans Training Information)	Pearson Correlation	-.063**
	Sig. (2-tailed)	0.000
	N	10367
Zscore(Trans Training Purpose)	Pearson Correlation	-.049**
	Sig. (2-tailed)	0.000
	N	10364
Zscore(Trans Number of Organizations whose Training having Participated In)	Pearson Correlation	-.126**
	Sig. (2-tailed)	0.000
	N	10367

Notes:

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.