Investigation and Analysis of the Key Success Factors for Visually Impaired Life Reconstruction-Take Taiwan as an Example

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Abstract

The visually impaired should return to society as soon as possible and reduce various negative impacts on their lives, as well as achieve independent living, employment, and other goals, the training of various skills for the visually impaired is particularly important. The main purpose of this research is to find out the key success factors in the teaching of the visually impaired, to achieve the highest goal of assisting the visually impaired in the reconstruction of their lives. The research conducted interviews with professional teachers of the visually impaired in the form of expert questionnaires, focusing on the organization's business environment, business team philosophy and capabilities, students' physical characteristics and learning motivation, teaching environment, and management team concepts, and internal processes. A total of 35 questions in 5 facets were discussed in-depth, and the results found 5 questions including government policy support, resource development network connection ability, student learning motivation, professional/teacher education training and motivation, and the ability to plan course activities. The items were deemed important and necessary by all experts. This shows that the current society for the teaching of the visually impaired still needs to invest more social resources. The survey questionnaire, it is found that the systematic establishment of teaching model for the reconstruction of the visually impaired requires many links to complement each other. It is not achieved overnight from the development of teachers, the psychological factors of the visually impaired, even to the learning motivation.

Keywords: life reconstruction, visually impaired, key success factors

1. Introduction

The Life Reconstruction Center for visually impaired mainly provides people with non-congenital visual impairment with the ability to live independently and autonomously, and let them return to normal daily life through training, emotional support, and consultation on the welfare of them. When visually impaired people face loss of vision or continuous decline, it is difficult to accept the facts and the consequent inconveniences in life. The increased frequency of their dependence on other people's assistance will increase the pressure on their family members and their main caregivers. Domestic research on the relationship between visually impaired persons and their families pointed out that in the early stage of disability, family members are deeply affected by the emotions of the visually impaired, and disputes and conflicts between the visually impaired and their families are prone to occur (Chen & Huang, 2012).

A study by (Wan, 2000) found that the adjustment process of visually impaired adults in the middle of a lifetime, including six stages including loss of vision, unemployment or loss of school, interpersonal alienation, seeking information, participating in vocational training, and returning to society, which may occur simultaneously, overlap or regress. As the saying goes "Give a man a fish and you feed him for a day; Teach a man to fish and you feed him for a lifetime." The first step is of course significant, inspiring visually impaired people to apply and adapt to different stages in their subsequent lives. The reconstruction education for visually impaired is special and professional, and it is also different from the general traditional teaching. How to plan suitable teaching courses and the choice of the teaching model of the instructor will have a significant impact on the effect of the reconstruction of learning and life of visually impaired.

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Under the condition of limited resources, visually impaired service organization will allocate the correct resources and professional teaching mode, which will effectively improve the teaching quality and effectiveness of the visually impaired; the visually impaired and their families will also expect the visually impaired service organization can provide professional services for changing the quality of life. Therefore, visually impaired service organizations need to constantly adjust themselves and adapt to market changes (adapt to different service levels) to provide better services for the visually impaired in an environment with increasing service quality requirements and strengthen the application and application of academic theories and pragmatism. The so-called Engaged Scholarship, increases the availability of academic research results in the practical world, and finally finds out the key factors for the success of the educational model for visually impaired institutions. To facilitate the optimization of teaching model of the service organization and find out the service needs of visually impaired are the purpose of this article.

This study takes the form of expert questionnaires, with professional visually impaired teachers as the main target, and uses questionnaires to understand the key factors for the success of the professional teacher's teaching model for the reconstruction of the life of visually impaired.

2. Literature Review

The International Classification of Diseases 11 of World Health Organization. (2018) classifies vision impairment into two groups, distance and near presenting vision impairment. Distance vision impairment: Mild – visual acuity worse than 6/12 to 6/18,

Moderate –visual acuity worse than 6/18 to 6/60, Severe –visual acuity worse than 6/60 to 3/60 & Blindness – visual acuity worse than 3/60.

It is well known that vision is the most important sense for people to receive information from the outside world, but this is not the case for the visually impaired. Most of the visually impaired receive information from the outside world mainly by hearing and touch.

When visually impaired read books, braille is the main form of daily life, and there are no graphics and text aids. Therefore, the tactile graphics card is a method of transforming tactile graphics into information so that the visually impaired can understand the graphics. If the graphics are too complex, it will affect the information they can distinguish. This research constructs the accuracy and reaction time of visually impaired people's ability to recognize basic tactile figures and construct figure shapes. The research results can provide a reference basis for the design of tactile graphics training aids for the visually impaired, and then design related products for the shaping training of the visually impaired.(Huang & Tu,2018).

Of course, it is undeniable that vision is the most effective way to receive information. Any form of teaching is often inseparable from the use of vision. Therefore, the biggest dilemma for the visually impaired is that they cannot actively understand the outside world like people, things, and materials through observation, visual cues, or reading. Therefore, unless relying on hearing, touch, or self-imagining to learn and understand everything, you must rely on others to teach purposefully (Chu, 2010).

To meet the life training and vocational training needs of visually impaired, service organizations need to make good use of non-visual teaching methods to achieve their teaching goals. The highest goal of the life reconstruction of visually impaired must be to enable to take care of themselves without the assistance from others. After proper vocational training, comprehensive assistance to life can be provided to the visually impaired. The proportion of visually impaired persons in the occupational reconstruction service group is extremely small in reality, and relevant service experience is difficult to accumulate and pass on. Therefore, a database of successful cases of visually impaired reconstruction services has been established. The content of the database focuses on the counseling strategies and service resources used by professionals and counseling how to solve difficulties (Chu et al., 2018).

Service technologies are constantly being introduced and new, effective management of institutional resources, manpower allocation, and planning of teaching and living services are all critical to whether the institution can effectively provide excellent services; the design and planning of the institution should fully consider various environmental factors to facilitate service targets and staff. This is one of the key factors to ensure the effective operation of the organization.

The application of information technology has fully entered daily life. In particular, health information has become one of the information frequently involved in people's daily life, and this is also true for visually impaired. In the information society, the popularization of information should be fair, and no ethnic group should be neglected. It cannot be denied that the information behavior of visually impaired has not received the

attention of researchers in the past (Chen, 2020). Therefore, many professional teachers of visually impaired tutoring institutions have applied a large number of information equipment to the teaching mode to improve the learning effect of visually impaired at present. In addition to the reconstruction of life in the future, the application of information equipment is also very helpful for the life of visually impaired.

The psychological construction level of the visually impaired is also the focus of service agencies. The curriculum planning of the institution and the teaching model of the instructors must take into account the resilience of visually impaired, and give them positive physical, mental, and spiritual development. Multiple psychological constructions can help them to have good emotions and cognition. A healthy body enhances the physical function and vitality, and spiritual nourishment helps them to give a transcendent insight and transformation of suffering. The three functions are different but can help each other (Chen & Ke, 2017).

Even people with normal eyesight need a lot of time and energy to cultivate their reading ability, not to mention the visually impaired, so Braille was born. People used to think that visually impaired should use the same text as those with eyesight in the past, instead of creating another braille system. Therefore, the appearance of the early linear fonts was similar to that of the Roman alphabet to allow visually impaired to integrate into the society of discerning people. The visually impaired doesn't need to learn a new writing system again when they lose their sight halfway through, and just need to turn what they have learned in the past into braille (Chiu, 2020).

Therefore, visually impaired people lose their sense of psychological security, basic ability in daily life, communication skills, appreciation skills, professional skills, and other abilities due to visual impairment, which will affect their life adaptation and learning motivation. Therefore, life reconstruction training for visually impaired is also shortening the reconstruction process. Social support has a positive influence on perceived usefulness and perceived ease of use, which in turn affects attitudes toward mobile touch devices. Owning resources has a direct effect on perceived ease of use, and indirectly affects perceived ease of use through usability, which further affects attitudes to use. Perceived ease of use has a positive influence on the three aspects of attitude cognition, emotion, and behavioral intention, while perceptual usefulness only has a significant impact on cognition and behavioral intention, and the impact on the emotional aspect does not reach a significant level. (Lee et al., 2018).

The psychological aspect is even more important. Service organizations need to consider personal attitudes and family support together. Family support will have a positive influence. In contrast, the negative effects of personal attitudes do not reach statistically significant levels. In other words, the intervention of family support can indeed reduce the negative impact of personal negative attitudes, which in turn can help improve employment opportunities for visually impaired (Lin, 2013).

To maintain efficient operations, service organizations for visually impaired need to perform better in the internal processes of the organization. When professional teachers go to the service organization, they must also understand the various internal management procedures and processes of the service organization, so that teaching can be carried out effectively work. Therefore, a complete system construction can enable the visually impaired to enhance class confidence, study motivation, develop physical functions, relieve psychological pressure, increase self-confidence and integrate into group life (Chen et al.,2016). Finally, members of visually impaired organizations may be more resistant in the face of social changes. And organizations need to successfully introduce new competitive strategies. Of course, organizational changes often lead to internal resistance in reality. With the changes of the times, the continuous increase in operating costs and external risks of service organizations for visually impaired are also serious issues of non-profit organizations. The operation of the organization is full of challenges in the future, but it is difficult for the organization to change the environmental factors. It can only self-regulate and adapt to the environment to provide complete and systematic teaching work for the visually impaired.

3. Methods of Data Collection

3.1 Expert Questionnaire Design and Dimensions

This research mainly explores the key factors for the success of teaching service of visually impaired service organization, how to promote the successful reconstruction of the life of visually impaired through perfect service teaching, constructing a new teaching policy, and proposing the key factor framework is the main goal of this research. According to the literature research, combined with the research on key factors for the successful teaching of visually impaired service organization, and then the questionnaire interview with the relevant professional teaching staff of visually impaired organization to find out the necessity of the relevant factors to better understand the operation of the teaching mode of visually impaired organization.

3.2 Facet Instruction

This research mainly explores the teaching model of professional teachers for the reconstruction of visually impaired. How to make the teaching model of visually impaired service organizations more efficient through strategic management and how to construct a new business policy is the main goal of this research. Based on the literature research, combined with the research on the key factors of the professional teacher's teaching model for the reconstruction of the life of the visually impaired, it is necessary to find out the relevant factors based on the questionnaire interviews with the professional teachers of the visually impaired institutions, to better understand the teaching operation of the visually impaired institutions situation.

The questionnaire has a total of 5 facets and 35 question items. After removing the important factors rejected by experts during the survey process, a total of 14 significant key success factors for the teaching model of professional teachers for life reconstruction of visually impaired are retained.

3.3 Expert Information

A total of 13 professional teachers were surveyed in this research questionnaire. The respondents have Orientation and Mobility Specialist, Self-Care Training Specialist, Assistive Technology Specialist, psychological counselor, etc. one or two qualifications; there are 8 women and 5 men among the survey subjects; 6 teachers have been employed for more than 10 years, and another 1 teacher has been employed for more than 30 years.

After the recovery of expert questionnaires, to understand the expert judgment of various factors, research variables were used for observation and measurement. This research applies the content validity ratio (CVR) by (Lawshe ,1975) as the judgment criterion. The formula is shown in Equation (1). The judgment criterion is shown in Table 1. The number of experts is 13 people in this research. Therefore, the judgment criterion has a CVR value of 0.54.

$$CVR = (n_e - N/2)/(N/2)$$
 (1)

 $N: Total\ number\ of\ Subject\ matter\ Experts\ (SME)\ experts\ n\colon\ Number\ of\ SME\ experts\ indicating \\$

Table 1. Minimum Value of CVR and One Tailed Teat, p = .05

No. of Panelists	Min . Value*	
5	.99	
6	.99	
7	.99	
8	.75	
9	.78	
10	.62	
11	.59	
12	.56	
13	.54	

^{*} Min .Value must over 0.54

4. Result in Analysis and Discussion

4.1 Result in Analysis and Discussion

Visually impaired people not only need the systematic teaching and guidance of professional teachers for the development of their own career planning, but also various activities in daily life. Educational institutions for visually impaired is one of the important helpers to assist the visually impaired in the reconstruction of their lives. Its importance is reflected in the establishment of a systematic life reconstruction model through professional teachers in the process of teaching and counseling.

4.2 Institutional Business Environment Facet

Service organizations for visually impaired are faced with huge funding and operating pressures in reality. Therefore, support from government policies is needed to have relevant funding support and to be able to construct a more completed service plan.

The teaching planning of professional teachers should be highly valued by service organizations so that visually impaired can understand the meaning of teaching and accelerate the progress of life reconstruction.

A barrier-free environment must be a prerequisite for service organizations for the visually impaired.

Table 2. Internal Process Facet

Factor	n	CVR	
Teaching autonomy and flexibility	11	0.69	
Government supervision	13	1	
Extent of barrier-free and friendly environment	12	0.846	

4.3 Management Team Philosophy and Ability Facets

Service organizations for visually impaired also need to construct and deepen the relationship with service targets, and then realize and promote the public to allocate resources to the organization; therefore, the planning department in the organization needs to meet the general social values in planning its overall positioning.

Table 3. Management team philosophy and ability Facets

Factor	n	CVR
Strategic planning and overall positioning	12	0.846
Capabilities of resource development and network connection	13	1

4.4 Students' Physical Characteristics and Learning Motivation

Visually impaired people face inconveniences in life and loss of vision, which can cause their emotional instability, and they need to constantly adjust their mental state. Professional teachers can pay more attention to the visually impaired during courses, and look positively at their negative motivations. This research also will be focused on more in-depth research on the mental state of visually impaired in the future!

Table 4. Students' physical characteristics and learning motivation

Factor	n	CVR
Student learning motivation	13	0.846
Student concentration	12	1

4.5 Teaching Environment and Team Concept

Reconstruction of life allows people who are blind halfway through to overcome visual barriers and return to their original lives. Appropriate use of emerging assistive technologies in this process is to achieve goals. Families and peers of visually impaired agree with the concept of reconstruction services and support the service targets at different levels, which will help to improve the reconstruction effect and shorten the process and provide appropriate support and guidance through mutual recognition and reflection. Therefore, the support of family members and peers of the client is particularly important.

Table 5. Students' physical characteristics and learning motivation

Factor	n	CVR
Introducing new teaching concepts continuously	11	0.69
Service target family members support	12	0.846
Service target peer support	12	0.846

4.6 Internal Process Facet

To maintain high-efficiency operations, the internal processes of the organization need to perform better. How to promote and improve the various processes within the organization, establish an efficient management method and cooperate with the corresponding tracking, feedback mechanism,

education and training, rewards, etc., are all managers' issues that must be faced. The application of institutions linking social resources to curriculum teaching will also improve teaching effectiveness. Institutions follow the individual needs and characteristics of service users and match professional teachers with suitable ones, which will help improve teaching effectiveness.

Table 6. Internal Process Facet

Factor	n	CVR
Ability to plan course activities	13	1
Education,training and motivation for professionals/teachers	13	1
Social resource utilization	12	0.846
Helper matchmaking	12	0.846

5. Conclusion and Suggestion

During the questionnaire interview process, it was found that many visually impaired people who were blind halfway still need to bear the burden of family life and have an urgent need to rebuild their lives and return to the

workplace. In addition to the physical reconstruction of their lives, institutions and professional teachers will also focus on counseling visually impaired in the psychological reconstruction. Complete teaching not only provides life skills for visually impaired but also meets the specific and individual needs of the visually impaired.

Professional teachers serving in institutions are also facing insufficient investment in social resources. Service agencies for visually impaired have even listed resource development and network connectivity as absolutely important key factors. In summary, not only visually impaired are facing the pressure of insufficient social resources, but also service agencies and practitioners are feeling the pressure.

Of course, organizations and practitioners need to face this social reality on their own. It is recommended that service organizations build and deepen their connections with society, cultivate organizational goals to connect the value of social subjects and promote the growth of the organization, and ultimately meet the expectations of serving visually impaired.

In addition, visually impaired are affected in life, occupation, and social life. If the independence of life (such as going out, using a computer or mobile phone for the blind) is not good, it is difficult for them to return to the workplace. So career reconstruction also needs to assess the abilities and fitness.

References

- Chen, C. H., Chueh, Y. C., & Lin, C. P. (2016). The learning experience of water aerobics course for visually impaired female student. *Journal of Huel Ming Special Education*, *3*, 213-228.
- Chen, M. J., & Ke, R. Y. (2017). A Preliminary Study of Career Resilience of Adults with Visual Impairment. Journal of Disability Research, 15(3), 164-181.
- Chen, M. Y., & Huang, K. Y. (2012). Analysis of Learning Effects and Support Systems for the Visually-impaired Students at Junior High Schools in Taichung City. *Special Education Forum*, *12*, 94-106.
- Chen, S. C. (2020). A Study of Health Information Behavior of Visually Impaired People. *Library and Information Science*, 96, 1-40.
- Chiu, T. (2020). Choosing between Lines and Dots: The Evolution of Reading Systems for People who are blind in Taiwan during the late 19th Century. *Bulletin of Special Education*, 45(1), 97-112.
- Chu, M. H., Lu, S. C., Chen, C. H., & Wu, H. C. (2018). The Difficulties between Life Rehabilitation and Vocational Rehabilitation of Visual Impairment in Taiwan. *Journal of Disability Research*, 16(3&4), 220-233.
- Chu, Y. Z. (2010). New thinking to strengthen the independent living ability of the visually impaired. *Community Development Journal Quarterly*, 130, 334-348.
- Huang, H. F., & Tu, K. H. (2018). An investigation on the construction of tactile shape concept for visually impaired people. *Journal of Design Research*, 11, 56-67.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28, 563-575. https://doi.org/10.1111/j.1744-6570.1975.tb01393.x
- Lee, H. N., Cheng, Y. F., Chang, C. H., & Wu, J. G. (2018). Study on Attitude toward Mobile Devices in Students with Visual Impairments: Perceived Usefulness and Perceived Ease of Use as Mediating Variables. *Bulletin of Educational Psychology*, 50(1), 107-129.
- Lin, T. Y. (2013). The Influence of Personal Attitudes and Family Supports for Employment of Persons with Vision Disability. *Journal of Disability Research*, 11(4), 220-232.
- Wan, M. M. (2000). The Causes and adaptability of acquired blindness for adults. *Bulletin of Special Education*, 19, 59-78.
- World Health Organization. (2018). *Blindness and vision impairment*. Retrieved from https://www.who.int/en/news-room/fact-sheets/detail/blindness-and-visual-impairment

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