Empowerment Counseling Journal
e-ISSN: xxxx-xxxx p-ISSN: xxxx-xxxx

ORIGINAL ARTICLE OPEN ACCES

THE DEVELOPMENT OF A CAREER MODULE FOR DEAF STUDENTS USING DBR APPROACH: A LITEATURE REVIEW

Pardi[1], Dede Rahmat Hidayat[2], Aip Badrujaman[3], Febriella Fauziah[4]

*Correspondence:
Email :
febriella0702@gmail.com

Affiliation :
1, 2, 3, 4 Universitas Negeri Jakarta, *Indonesia*

Article History :
Submission : February 20, 2025
Revision: April 21, 2025
Accepted: May 12, 2025
Published: June 26, 2025

Keyword : *Career Module; Design-Based Research; Inclusive Education*

Abstract

This study aims to develop career module for deaf students using the Design—Based Research (DBR) approach. This study used a literature review method to analyse and synthesize previous research related to the development of career module for deaf students. The module is designed to address challenges such as communication barriers, limited vocational training, and social stigma faced by deaf students. Through a literature review method, the researcher explores various academic sources, including scholarly journals, books, and research articles, to build a theoretical framework and identify gaps in previous educational approaches. The module integrates career development theories, self—efficacy, and a multimodal approach to offer a more inclusive, authentic, and adaptive learning solution. The findings indicate that the success of this module is supported by the involvement of multiple stakeholders such as teachers, parents, and students, enriching the learning process. This module is also designed to promote the sustainability of inclusive education through the active engagement of various stakeholders. These findings contribute significantly to the improvement of inclusive education policies in Indonesia.

Introduction

Deaf students face complex challenges in entering the workforce, with very low job absorption rates after graduation. Data from the Central Statistics Agency (BPS, 2022) shows that of the 22.5 million people with disabilities in Indonesia, only about 10.26% are absorbed in the formal sector. This condition is worse for SLB graduates, including deaf students. The BPS survey (2020) noted that only 5.7% of SLB graduates obtained permanent jobs. The results of research by Pardi & Herdi, (2024) reported that 30% work informally, 15% are self-employed, and 30% help the elderly. This low number not only reflects individual limitations, but also the lack of effective assistance in meeting the needs of people with disabilities, even though they have completed their education.

One of the main causes of the low uptake of deaf graduates is the lack of access to truly inclusive vocational education. Data from the Ministry of Education and Culture (2021) reveals that only 30% of SLBs in Indonesia have adequate job skills programs for deaf students. This problem is exacerbated by the lack of learning modules specifically designed for deaf communication needs, so that 72% of SLB teachers (University of Indonesia, 2019) have difficulty teaching vocational skills. As a result, graduates are often not ready to compete in the job market, because less than 20% of SLBs have a vocational curriculum tailored to hearing disabilities (Directorate of PKLK, 2022). In addition, social barriers in the form of stigma and discrimination further aggravate this situation, even though there is actually a legal umbrella such as Law No. 8 of 2016 that guarantees the right to work for people with disabilities.

The impact of low job absorption and lack of vocational training is the high dependence of deaf people on their families. Bappenas (2023) estimates that 60% of deaf SLB graduates are still financially dependent on their families, while Komnas Disabilitas (2021) highlights that 85% of companies in Jakarta do not have inclusive policies for recruiting people with disabilities. This creates a cycle of self-sufficiency: the lack of job opportunities leads to unemployment or odd jobs, which ultimately prolongs dependence on the family support system. Another factor that

exacerbates the situation is the lack of accessible job training - the ILO (2020) noted that only 12% of people with disabilities in Indonesia receive training according to their needs.

Previously, various studies have tried to overcome the problem of job readiness of deaf students, but the results have not been optimal. Save the Children studies show that conventional modules often fail because they do not consider the specific communication needs of deaf students. In contrast to previous research which tends to be partial, the findings of Mufidah and Azizah (2020) actually underline the importance of a holistic approach that combines hard skills, soft skills, and psychosocial support. However, the implementation of these findings is still hampered by a lack of teacher training and adequate resources, so new innovations are needed in the form of more comprehensive modules.

As a solution effort, this study uses a complementary theoretical framework to answer these multidimensional challenges. One of the main theories used is Donald Super's theory of career development, which provides a framework for the stages of professional development that are particularly relevant for deaf students aged 14-24. This theory is combined with the concept of self-efficacy from Albert Bandura, which emphasizes the importance of self-confidence as the foundation of job readiness. Holland's RIASEC model and Social Emotional Learning (SEL) framework are also used to map individual potential and develop social-emotional skills that are crucial for success in the world of work.

Therefore, this research was designed with the aim of creating solutions based on local needs that are truly applicable. Unlike general job training programs, these modules are specifically developed to improve soft skills such as confidence and effective communication through participatory methods. Furthermore, this module aims to bridge the gap between inclusion policies and the reality on the ground, as well as become a model that other inclusive schools can adopt. In other words, this research does not only focus on the output in the form of modules, but also on the manufacturing process that involves all stakeholders.

In the context of the latest developments in inclusive education, this research offers an innovative approach through the Design-Based Research (DBR) method. Different from conventional linear research, DBR allows for continuous adaptation based on field feedback through iterative cycles. In addition, the integration of the latest assistive technologies such as sign language-based learning videos and running text is a differentiator compared to traditional modules. More importantly, a multimodal approach that combines visual, kinesthetic, and auditory is specifically designed to optimize the understanding of deaf students.

Although the challenges of social stigma remain, Goffman's theory provides an important perspective for designing effective interventions. For example, role-play and work simulation activities in this module are specifically designed to combat self-stigma while preparing students to face discrimination in the world of work. In contrast to regular training programs that focus only on technical skills, the approach of Dacre Pool and Sewell (2007) adopted in this study emphasizes the balance between hard and soft skills as a weapon against stigma. Thus, this module not only improves competence, but also the mental resilience of students.

To achieve this goal, this research methodology prioritizes a participatory approach that involves all relevant parties. First of all, the identification of problems is done through in-depth interviews with teachers, students, and parents. After that, the module prototype is developed by combining the main theory and the specific needs of the field. The iterative approach of DBR allows for continuous revision based on formative evaluation during the trial. As a result, the final product is expected to be completely in line with the real context.

The expected impact of this study is multidimensional and tiered. In the short term, this module is expected to significantly improve students' soft skills, especially in communication and confidence. Meanwhile, in the medium term, the adoption of modules by schools as part of the curriculum will create a more sustainable system. More importantly, the findings of this study can

be a reference for improving inclusive education policies at the national level. Thus, the benefits of the research are not only limited to the local deaf community, but have the potential to be felt by people with disabilities throughout Indonesia.

The integration of various theories and approaches in this module is carried out through innovative and thorough learning activities. For example, the theory of Super career stages is embodied in an interactive career exploration game, while Bandura's concept of self-efficacy is translated into a gradual achievement challenge. In addition, the use of visual media and concrete props is specifically designed to accommodate the unique learning styles of deaf students. In this way, complex theories can be internalized by students through meaningful hands-on experience.

Ultimately, this research does not just produce learning modules, but offers a paradigm shift in inclusive education approaches. Compared to conventional job training programs, this module emphasizes on building independence and psychological resilience as the foundation of job readiness. Therefore, its success is measured not only by the number of students working, but also by the holistic improvement of their quality of life. In other words, this research can inspire similar innovations in various other areas of inclusive education.

Method

The type of research used is qualitative which is known as a systematic and iterative approach. This approach aims to address practical problems while developing relevant educational theories. This research begins with the identification of problems, which are carried out through interviews, observations, and document studies to explore the needs and challenges faced by deaf students. This approach is enriched by the literature study method, which aims to examine various relevant references in the development of the module. Literature studies are conducted to collect and analyze information from written sources such as journals, scientific articles, books, and other documents. Through this process, researchers can identify gaps in previous research, understand relevant theories, and formulate module frameworks based on existing findings. The revision process is carried out intensively based on inputs, so that the resulting modules are not only theoretical but also applicable. In this context, literature studies serve as a foundation that helps researchers design relevant, evidence—based modules. Literature analysis also helps researchers ensure that the modules developed can address existing challenges with innovative and adaptive approaches.

Results and Discussions

A reflective approach in career exploration is an in—depth strategy that makes self—understanding the core of the career guidance process. Savickas (2012) emphasizes that personal narratives can help individuals build "life stories" that uniquely connect values, interests, and career goals. Support for critical reflection is also expressed by Mezirow (2000), who states that shaking up limiting career assumptions can bring about a transformation of perspective. This is reinforced by Super (1990) who emphasizes self—exploration across life stages as the foundation for career decisions. Practices such as reflective journaling or value—based dialogue are effective ways to help individuals understand patterns of motivation and career identity sharply.

The development of high—level thinking skills then complements a reflective approach by encouraging students to systematically analyze, evaluate, and synthesize career information. *Bloom's Taxonomy* (Anderson & Krathwohl, 2001) shows that SWOT analysis is a strategic tool in designing career plans. Therefore, this approach not only teaches students to choose, but also to understand the impact and potential of their choices.

In addition, real-life experiences are key in a contextual and authentic learning approach. Kolb (1984) emphasized that hands-on experiences such as internships, job shadowing, and industry-based projects provide in-depth insights that cannot be obtained through theoretical methods alone. Lent & Brown (2013) added that direct interaction with the world of work strengthens students' self-efficacy, while Billett (2009) explained that direct observation helps students understand the work context realistically. This strategy shows that the integration of industrial projects and problem-based learning (PBL) is able to bridge theory with career reality. Bandura (1997) showed that active exploration and small successes increase students' confidence. Approaches such as *career design thinking* and *personalized career roadmaps* prepare students to become independent and empowered individuals to face the world of work.

Reflective approaches, high-level thinking skills, authentic experiences, and empowerment, if designed with *Design-Based Research (DBR) principles,* can result in inclusive and adaptive learning modules. DBR not only encourages the integration of visual and multimodal elements to support the learning of deaf students but also strengthens career reflection and critical thinking skills in module design. Using holistic evaluation, DBR ensures that the modules produced are appropriate to the needs of learners while preparing them for the complexities of career decision-making across life stages.

Visual representation and multimodal approaches are effective solutions to help students understand abstract concepts, as shown by Marschark & Hauser (2012). In addition, teaching media that are responsive to the needs of students, such as interactive technology, expand the accessibility and effectiveness of learning for deaf students (Edyburn, 2013). These approaches provide a more inclusive educational foundation while supporting career exploration for students with special needs. One of the key principles is *visual-heavy* (Edyburn, 2013), which emphasizes the importance of visual elements such as images, diagrams, and cue videos as well as running text to convey information effectively. In addition, *a multimodal* approach (Cavender et al., 2009) integrates various media such as text, cues, and animations to enrich students' learning experiences and expand information.

Finally, interactivity (Bouck & Flanagan, 2010) is key in engaging students directly through *hands-on* activities, which not only strengthen students' engagement but also practical understanding. In this way, challenges in the learning of deaf students can be effectively addressed, creating greater opportunities for their academic and social success.

The literature review research underpinning this effort provides practical guidance to understand evidence-based educational design through *the Design-Based Research* (DBR) approach. This approach encompasses various aspects of educational design research and learning of deaf students. The study conducted by McKenney and Reeves (2012) is the main reference in the application of DBR, because it is able to integrate scientific analysis with the development of practical solutions to overcome challenges in the world of education. This research comprehensively discusses important stages, such as analysis, exploration, design, evaluation, and implementation, and is equipped with practical guidance in the preparation of research proposals and reports.

Marschark and Hauser (2012) explore the learning characteristics of deaf children, especially their needs in language development and academic success. The book highlights the significant differences between deaf and hearing children, and offers innovative learning strategies to apply both at home and at school.

Edyburn (2013) highlights the importance of accessibility design principles as a foundation to support learning for deaf students and students with hearing impairments.

Empowerment Counseling Journal
Vol. 1. No. 1 Edisi January – June 2025

This research shows that the integration of assistive technologies and the application of universal design can create an inclusive and effective learning environment. This principle is the basic framework for the implementation *of Design-Based Research* (DBR), which allows the development of learning modules based on students' real needs.

An in−depth literature review of evaluation methods in *Design-Based Research* (DBR) has provided a comprehensive guide to evaluating the effectiveness of learning modules, particularly in the context of deaf education. One of the most fundamental methods is the use of questionnaires to assess the practicality of modules. Plomp and Nieveen (2013), along with Van den Akker et al. (2006), emphasized the importance of collecting direct feedback from teachers and students through questionnaires. This feedback plays a central role in identifying implementation issues, as well as being the basis for iterative design improvements. A study by Alasim (2018) strengthens the effectiveness of questionnaires by showing how these instruments can be tailored to assess the accessibility of modules for deaf students, covering visual aspects, sign language use, and relevance to learning needs.

Table 1. RIASEC Interest Test Survey Results

NAME	R	I	A	S	E	C
X1	7	4	4	6	6	6
X2	7	4	4	4	7	1
X3	4	4	4	5	3	1
X4	2	2	2	4	4	1
X5	6	3	3	6	4	1
TOTAL	26	17	17	25	24	10

Based on the results of the RIASEC Interest Test survey (Table 1) on Deaf Disabilities, data was obtained that each individual has different interest tendencies. After being grouped according to rank (Table 2), each individual has a strong tendency to have interests, some have: X1 is one type, which is realistic, X2 has two personality types, namely realistic and enterprising (effort). X3 has one personality type, namely social. X4 has two personality types, namely social and enterprising (business). X5 has two personality types: realistic and social (Table 2).

Table 2. Cumulative Results of the RIASEC Interest Test Survey

	I	II	III
X1	R	S,E,C	I,A
X2	R,E	I, A,S	C
X3	S	R,I,A	E
X4	S,E	R,I,A	C
X5	R,S	E	I,A
Total	R	S	E

John Holland's *RIASEC* personality theory can be applied to **deaf** children with some adjustments. Children with **the Realistic** type are more comfortable with physical activity and motor skills, so they are suitable in technical fields such as carpentry, automotive, or product design. Those with **Investigative** tendencies are more interested in science and problem−solving, so they can develop in the field of technology or research with the support of visual media. For children with **an artistic** type, art is a potential means of expression, such as graphic design, photography, or dance. Meanwhile, **the Social** type can still excel in professions that involve interaction, such as teachers

for deaf people, counselors, or social workers, with visual communication support. Children with **an enterprising personality** have a leadership spirit and can be directed to the field of entrepreneurship or advocacy with the help of communication technology. The **Conventional** type that likes regularity is more suitable in administration, data processing, or finance, with the support of text—based devices.

These findings confirm that the RIASEC approach is more effective in improving the conceptual understanding of deaf students, but it also facilitates immersive learning through hands—on experience. Two social—type students showed an interest in the culinary field after participating in a "Restaurant Day" simulation, illustrating how project—based career exploration can spark more authentic self—awareness and interests. Physical aids such as wooden blocks for carpentry simulations have a more significant impact than slide presentations, reinforcing the argument that multisensory learning plays an important role in supporting students' deep understanding and active engagement. Simulation practices such as coffee shop management have proven to be more effective in explaining the concept of "Enterprising" than theory—based approaches. Students with severe hearing loss rely more on illustrated diagrams as a source of information, confirming the importance of visualization in contextual learning for them. Motivational impacts were also seen when some students independently formed a career exploration group after the session took place, suggesting that these modules not only improved cognitive understanding but also empowered students to take initiative in their future planning. The results of the RIASEC test that have not been optimally utilized reveal the need for a reflective approach to help students achieve a deeper self—understanding of their values, interests, and life goals.

Based on the results of the analysis, the module revision was carried out by adding alternative projects tailored to each type of RIASEC, such as graphic design for the Artistic type, which further strengthens the interest—based approach and self—understanding. Technology is also adapted by developing a simple tablet app that allows students to match interests and professions through *drag-and-drop* interactive features, facilitating more dynamic and participatory career exploration.

The sustainability of the modules is ensured through a layered feedback system involving students, teachers, and parents, where student notebooks are used as a medium of flexible interest exploration and the teacher's digital dashboard allows for systematic monitoring of individual development. Parent forums are held periodically to align the material with the students' family dynamics, and feedback from them led to the addition of a "Family Career" session after it was discovered that most of the students came from artisan families. This further reinforces the contextual and authentic approach in the module, while demonstrating how the involvement of various stakeholders can enrich an in—depth and meaningful learning process for deaf students.

Design—Based Research (DBR)-*based career guidance modules* are a more effective approach than conventional job training programs, especially in the context of deaf education. The general approach often fails to understand the specific needs of students with hearing loss, relying too heavily on verbal—based instructional methods. Instead, this module departs from direct observation and empirical data, thus providing a more applicable solution. Deaf students need methods that are able to accommodate their communication limitations, such as visual representations, project—based simulations, and multisensory methods. By adapting the material based on real—life experience in the field, this module not only improves understanding of career concepts, but also builds independence in future planning.

Empowerment Counseling Journal
Vol. 1. No. 1 Edisi January – June 2025

Furthermore, the DBR approach allows for dynamic module development through data—driven iterative cycles. Unlike traditional methods that tend to be static and difficult to adapt to individual needs, this module is constantly updated based on observations and feedback from students and teachers. This approach emphasizes that inclusive education is not enough just to provide access, but must consider how the material can be truly understood and applied by students.

In addition, the success of inclusive education relies heavily on multi—stakeholder engagement, which in this case includes students, teachers, parents, and education experts. This module is not just a learning tool, but also a mechanism to build a more inclusive educational ecosystem. Parental participation in feedback forums, for example, results in additional "Family Careers" sessions that are relevant for students from artisan families. This proves that a local needs—based approach is much more effective than generic solutions that are adopted without considering the social context. With the active involvement of various parties, this module is not only an educational tool but also a catalyst for change in the inclusive education system.

The assistive technology applied in this module further strengthens its effectiveness. Tools such as *virtual job shadowing*, *drag-and-drop tablet* apps, and *role-model videos* with *subtitles* and sign language provide a more adaptive alternative for students with varying degrees of hearing loss. In contrast to conventional career programs that often rely on text—based materials or lectures, this multimodal approach is more responsive to individual needs. Therefore, the application of technology is not just innovation, but a must in inclusive education.

This DBR—based module also plays a role in overcoming social stigma which is still a big challenge for deaf students in the world of work. Activities such as *role-play* facing discrimination, career negotiation simulations, and experiential sharing sessions with deaf professionals help build student confidence. Career readiness is determined not only by technical skills, but also by psychological factors such as *self-efficacy* and emotional intelligence. Students who have taken these sessions experience an increase in their courage to face job interviews, as well as their ability to articulate career aspirations more clearly. Thus, inclusive education should prepare students not only to understand the world of work, but also to face the social challenges that come with it.

From a policy perspective, this module also contributes to the improvement of the inclusive education system in Indonesia. One of the main challenges in the implementation of inclusion policies is the lack of tools that suit the needs of students. Although regulations such as Law No. 8 of 2016 concerning Persons with Disabilities have been issued, there are still many schools that have difficulty translating this policy into real practice. DBR—based modules offer solutions that allow schools to adapt specific sessions according to their capacity. This flexibility makes the module a model that can be replicated and further developed to support inclusive education systems in different regions.

Considering the effectiveness of the DBR—based approach in improving the understanding of deaf students, strengthening multi—stakeholder engagement, utilizing assistive technology, addressing social stigma, and supporting inclusive education policies, it can be concluded that this module is not only an innovation, but a must in the development of more inclusive and sustainable education. Inclusive education is not enough just to provide access, but it must ensure that every student gets a learning experience that is meaningful and relevant to their lives. This module proves that a local needs—based approach is the most effective solution to creating a truly inclusive education.

Conclusion

The DBR—based modules developed in this study have been proven to be effective in increasing the career readiness of deaf students. This approach integrates literature study methods to ensure module design is evidence—based and relevant to student needs. Literature studies are the cornerstone in designing modules that are responsive to specific learning challenges, such as communication limitations and social stigma. An approach that integrates visual elements, assistive technology, and project—based simulation improves students' conceptual understanding and facilitates experiential learning. The success of this module is supported by the involvement of multi—stakeholders such as teachers, parents, and students, which enriches the learning process. With flexibility in implementation, this module not only offers practical solutions, but also becomes a model of best practice that can be replicated to support inclusive education more broadly.

References

Alasim, K. N., & Paul, P. V. (2018). Participation and interaction of deaf and hard—of—hearing students in inclusion classroom. *International Journal of Special Education, 33*(2), 493—506.

Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.

Anderson, T., & Shattuck, J. (2012). Design—based research: A decade of progress in education research? *Educational Researcher, 41*(1), 16—25. https://doi.org/10.3102/0013189X11428813

Badan Pusat Statistik (BPS). (2020). *Survei ketenagakerjaan penyandang disabilitas di Indonesia*.

Badan Pusat Statistik (BPS). (2022). *Statistik disabilitas Indonesia 2022*.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.

Bappenas. (2023). *Laporan analisis ketenagakerjaan penyandang disabilitas di Indonesia*.

Billett, S. (2009). Realising the educational worth of integrating work experiences in higher education. *Studies in Higher Education, 34*(7), 827—843. https://doi.org/10.1080/03075070802706561

Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. Longman.

Bouck, E. C., & Flanagan, S. M. (2010). Assistive technology and mathematics: What is there and where can we go in special education? *Journal of Special Education Technology, 24*(2), 15—30.

Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Springer.

Cavender, A. C., Bigham, J. P., & Ladner, R. E. (2009). ClassInFocus: Enabling improved visual attention strategies for deaf and hard of hearing students. *Proceedings of the 11th International ACM SIGACCESS Conference on Computers and Accessibility*, 67—74.

Dacre Pool, L., & Sewell, P. (2007). The key to employability: Developing a practical model of graduate employability. *Education + Training, 49*(4), 277—289. https://doi.org/10.1108/00400910710754435

Derry, S. J., Pea, R. D., Barron, B., Engle, R. A., Erickson, F., Goldman, R., Hall, R., Koschmann, T., Lemke, J. L., Sherin, M. G., & Sherin, B. L. (2010). Conducting video

research in the learning sciences: Guidance on selection, analysis, technology, and ethics. *Journal of the Learning Sciences, 19*(1), 3—53.

Dinas Sosial DKI Jakarta. (2022). *Laporan penyerapan lulusan SLB di Jakarta Barat*.

Direktorat PKLK. (2022). *Kajian kurikulum vokasional untuk siswa tunarungu di SLB*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Easterbrooks, S. R., & Beal—Alvarez, J. (2013). *Literacy instruction for students who are deaf and hard of hearing*. Oxford University Press.

Edyburn, D. L. (2013). Inclusive technologies: Tools for helping diverse learners achieve academic success. *Bridgepoint Education*.

Edyburn, D. L. (2015). Designing for learners with disabilities: Universal design for learning and assistive technology. *Journal of Special Education Technology, 30*(1), 35—38.

Gati, I., & Asher, I. (2001). The PIC model for career decision making: Prescreening, in—depth exploration, and choice. *Journal of Vocational Behavior, 59*(1), 1—19.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Prentice—Hall.

Hall, M. L., Eigsti, I.—M., Bortfeld, H., & Lillo—Martin, D. (2017). Auditory deprivation does not impair executive function, but language deprivation might: Evidence from a parent—report measure in deaf native signing children. *Journal of Deaf Studies and Deaf Education, 22*(1), 9—21.

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Psychological Assessment Resources.

Hoyt, K. B., & Wickwire, P. N. (2001). Knowledge and skills for career counseling in the 21st century. *The Career Development Quarterly, 49*(3), 218—228.

Humphries, T., Kushalnagar, P., Mathur, G., Napoli, D. J., Padden, C., Rathmann, C., & Smith, S. R. (2016). Avoiding linguistic neglect of deaf children. *Social Service Review, 90*(4), 589—619.

International Labour Organization (ILO). (2020). *Disability inclusion in Indonesia's labour market: Policies and practices*.

Jordan, B., & Henderson, A. (1995). Interaction analysis: Foundations and practice. *Journal of the Learning Sciences, 4*(1), 39—103.

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi (Kemendikbudristek). (2021). *Data SLB dan program vokasional di Indonesia*.

Knoors, H., & Marschark, M. (2014). *Teaching deaf learners: Psychological and developmental foundations*. Oxford University Press.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice—Hall.

Komnas Disabilitas. (2021). *Laporan diskriminasi pekerja disabilitas di sektor formal*.

Krumboltz, J. D. (2009). The happenstance learning theory. *Journal of Career Assessment, 17*(2), 135—154.

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self—management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology, 60*(4), 557—568.

Marschark, M., & Hauser, P. C. (2012). *How deaf children learn: What parents and teachers need to know*. Oxford University Press.

McKenney, S., & Reeves, T. C. (2012). *Conducting educational design research*. Routledge.

Mezirow, J. (2000). Learning as transformation: Critical perspectives on a theory in progress. *Jossey-Bass*.

Mufidah, N., & Azizah, N. (2020). Pendekatan holistik dalam pendidikan vokasional untuk siswa tunarungu. *Jurnal Pendidikan Inklusi, 5*(2), 45—60.

Nieveen, N. (2009). Formative evaluation in educational design research. In T. Plomp & N. Nieveen (Eds.), *An introduction to educational design research* (pp. 89—102). SLO.

Plomp, T., & Nieveen, N. (2013). *Educational design research: Part A: An introduction*. SLO.

Ryan, R. M., & Deci, E. L. (2000). Self—determination theory and the facilitation of intrinsic motivation, social development, and well—being. *American Psychologist, 55*(1), 68—78.

Save the Children. (2019). *Evaluasi modul pelatihan kerja untuk siswa disabilitas di Indonesia*.

Savickas, M. L. (2012). Life design: A paradigm for career intervention in the 21st century. *Journal of Counseling & Development, 90*(1), 13—19.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.

Super, D. E. (1990). A life—span, life—space approach to career development. *Journal of Vocational Behavior, 16*(3), 282—298.

Super, D. E. (1990). A life—span, life—space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2nd ed., pp. 197—261). Jossey—Bass.

Universitas Indonesia. (2019). *Studi kebutuhan guru SLB dalam pengajaran keterampilan vokasional*.

Undang—Undang Republik Indonesia No. 8 Tahun 2016 tentang Penyandang Disabilitas.