

Development of special education through physiological approaches

- Seguin and Kephart

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The objective of this research is to better understand the origin and history of intellectual disabilities, and to seek ways to apply the gained understanding to improve special education programs.

People with psychiatric disorders were once labeled merely as unethical. The necessity of special education program was only recognized after mental disorders were scientifically studied, and after the term “mental retardation” was acknowledged as a category of diagnosis. Philippe Pinel (1745-1826) was the first to attempt to classify mental disorders. Pinel’s objective, as described in his book *Nosographic philosophique*, was to scientifically understand mental illness in terms of medicine, rejecting the prior notion that psychiatric abnormalities were simply due to immorality or evil spirit. Jean-Étienne Dominique Esquirol (1772-1840), one of Pinel’s students, further developed the concept of

mani and *monomania*, building the foundation for the modern classification of mental disorders which was later introduced by Emil Kraepelin (1856-1926). In Esquirol’s definition, *mani* referred to mental illness that affects overall cognitive abilities, while *monoman* referred to the condition identified with specific irrational behaviors and notions. *La démence* (or “dementia”) is defined as being devoid of reason, and when this condition is recognized from birth such cases are classified as *L’idiot* (or “idiot”). Furthermore, *La mélancolie* was defined as psychological abnormality that only affects moods. These classifications introduced by Esquirol defined what mental retardation is for the first time in history, clearly separating it from other mental disorders.

While neither Pinel nor Esquirol suggested any remedies for *L’idiot* as both of them assumed it incurable, the establishment of *L’idiot* diagnosis classification immensely

contributed to the deepened understanding of mental retardation and for the need of special education, providing a foundation for further development to the following researchers such as Itard and Seguin.

The concept of physiological education, originally developed under an assumption that cognitive development primarily requires senses, emphasizes the significance of sense training. E.O. Seguin, who is often considered as the leading figure of this school, shared the same view, though he also emphasized the significance of physical training along with sense training. Seguin's education system was purely physiological, and he believed that stimulating cerebrum through muscle invigoration and sense training would enhance cognitive ability to learn. This idea, largely influenced by his contemporary philosopher, Étienne Bonnot de Condillac, was further developed by other researchers, including Maria Montessori (1870–1952).

The modern physiological education, in comparison with the conventional approaches, is characterized by the belief that a certain level of preparation is necessary before a student receives education through social adaptation programs, vocational training, or academic curriculums. It emphasizes that sense, perceptual, and cognitive trainings are all equally important. N.C. Kephart is considered one of the originators of the modern special education systems. According to Kephart, failure to relate perceptual information with physical information will result in failure to attain higher learning ability. Kephart introduced six stages of learning, such as gross-motor stage, motor-perceptual stage, perceptual-motor stage, perceptual stage, perceptual-conceptual stage, and conceptual stage. Kephart believed that timing of each learning stage is not critical as long as the right order of the stages is followed. Because Kephart claimed that the perceptual-motor training is the most important of all, his educational method is often referred to as "perceptual-motor training method".

One thing Kephart's method fails to mention is the difficulty in social adaptation children with mental retardation have to cope with aside from academic stagnancy. This and

other weakness of physiological education has been pointed out in the recent years. Individually-designed special education program utilizing neurophysiology may be highly effective in identifying students' development level, but may not necessarily provide enough data in regards to how the teachers should provide education to each student. Since late 1960s, special education programs have focused more on analysis of teaching curriculum through behaviorist approach. It is widely understood today that physiological education alone is not effective enough, but support from other educational approaches, such as behavioral therapy or social adaptation therapy is necessary.

Today's special education methods can be classified into five categories, such as physiological education, social adaptation, academic education, modern physiological education, behavioral education. This paper discussed the origin and history of special education. It focused on physiological education, its advantages, and its disadvantages. The paper concludes that special education for mentally disabled individuals requires utilization of various educational approaches while the importance of physiological education should not be overlooked.

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