



## SCIENTIFIC AND THEORETICAL BASIS OF COCHLEAR IMPLANTATION

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### Abstract

This Article Provides Information About Scientists Who Conducted Scientific Research In Uzbekistan And Abroad On The Rehabilitation Of Hearing-Impaired Persons After Cochlear Implantation.

**Keywords:** Cochlear, Rehabilitation, Deafness, Classification, Pure Oral Method, Deaf Child, Hard Of Hearing Child, Implantation

Today, Many People Living In Many Countries Are Recovering Their Hearing With The Help Of Cochlear Implants. On A Global Level, Surgical Operations To Restore Hearing With The Help Of Cochlear Implantation Have Been Carried Out By Experts From Australia, The Usa, Austria, Germany, France, Japan And Russia For More Than Forty Years. R.V.Harrison, Y.Henkin, M.Luntz, M.Lutman, J.G.Nicolas, People Who Contributed Enough Experience In The World To Rehabilitate Implanted Clients Of All Ages, Create Strategies For Using Speech Processors, Conduct Surgical Operations. Aj Parkinson Et Al. In Russia, Scientific And Research Information Illuminating The Medical Aspect Of Cochlear Implantation Is Pouring In. Regarding The Cochlear Implant, Russian Scientists M.R. Bogomilsky, I.V. Koroleva, A.V. We Can Take As An Example The Works Of Kruglov, A.V. Pashkov, S.M. Petrov, V.I. Pudov, A.N. Remizov, V.P. Sitnikov, G.A. Tavartkiladze, V.I. Fedoseev And Others. Medical Workers And Pedagogues Were Actively Involved In The Rehabilitation Of Hearing-Impaired Persons.

As A Result Of The Work Of Specialists From Different Foreign Countries, The System Of Teaching The Hard Of Hearing And The Deaf, Their Philosophical Views, Medical, Pedagogical And Didactic Ideas And Directions Are Reflected. The Theoretical Foundations Of Teaching Deaf Children Appeared In The Renaissance Period Of The Xiv-Xvi Centuries (Cardano's Classification, 1501-1576). In This Case, Deaf Children Were Identified By Speech Status And Its Impairment. From This Period, The First Attempts Were Made To Separate Children With Low Hearing As A Separate Category.





Alexander Graham Bell Is One Of The First Pedagogues Of The Deaf In America At The End Of The 19th Century. He Developed Methods Of Teaching Speech To Deaf Children. Considered To Be His Follower, Sarah Fuller Opened A Boarding School For Deaf Children Over 2 Years Of Age In Boston In 1888. He Believed That It Is Very Effective For Children To Acquire Oral Speech During Preschool Age. In Germany, The Idea Of Teaching Spoken Speech From The Earliest Ages Belongs To Sisters Emma And Mary Garrett, Who Use The "Mother's School" Method Based On Imitating Their Mother's Pronunciation.

By The End Of The 19th Century, Leading Deaf Pedagogues (N. M. Lagovsky, N. K. Patkanova, N. A. Rau) Justified The Idea Of Necessity Of Pre-School Education And Social Education For Deaf Children.

A Fundamentally New System Of Teaching Deaf Children Was Proposed By N. M. Lagovsky.

- The First Step Is To Organize A Group Known As "Children's Group" In Kindergartens For 2-Year-Old Children, Which Prepares For The General Development Of Children And Mastering The Sound Structure Of Words.
- The Second Stage Is Kindergartens, Which Are Considered The Task Of Collecting And Developing Children's Vocabulary, Forming Conversational Speech.

After That, There Are 3 Types Of Schools:

- 1) For Normal Deaf Children;
- 2) Auxiliary Schools For Deaf Children With Extremely Weak Abilities;
- 3) Vocational Schools For Children Who Graduated From The Above Two Schools.

N. A. Rau Pays Special Attention To The Necessity Of Teaching Deaf Children To Speak From An Early Age For Communication With Others. The Program For Teaching Young Deaf Children Was Developed By N. A. Rau. For The First Time, It Shows The Consistency Of Teaching Spoken Speech: Lip Reading, Pronunciation, Reading And Writing. Although The Method Proposed By N. A. Rau Was Accepted As A "Pure Oral Method", It Was Considered The Leading Method In The Development Of Deaf Pedagogy At That Time. In 1938, The "Pure Oral Method" Used In Schools For Deaf Children Was Severely Criticized At The All-Russian Meeting On The Issues Of Education And Upbringing Of Deaf Children. At This Meeting, A Decision Was Made To Change The Methods Of Teaching Deaf Children, And It Was Recommended To Use Written Speech As An Auxiliary Tool - Dactylology.

In The 50s And 60s Of The Last Century, Many Russian Scientists Were Engaged In Intensive Psychological And Pedagogical Studies Of Deaf And Hard Of Hearing Children. Among Them, R.M. Boskis, V.I. Beltyukov, A.G. Zikeev, S.A. Zikov, B.D.



Korsunskaya, L.V. Neiman, L.P. Noskova, F.A. Rau, F.F. We Can Count People Like Rau.

R.M. Boskis (1963) Proposed A Pedagogical Classification That Is The Basis For The Organization Of Differential Education In A Special School. This Classification Consists Of Two Sections.

Deaf Children Are Divided Into Two Categories According To The State Of Their Speech Development -

- Children Who Do Not Have Speech (Children Under 2 Years Old), I.E. Children Who Are Congenitally Deaf Or Who Have Lost Their Hearing Abilities During The Formation Of Speech.

- Children Who Acquire Speech At Different Levels, As Well As Later Deaf (Up To 2 Years Old).

As A Result Of Scientific Research Conducted By L. V. Neyman With Children Of Preschool And School Age With Hearing Impairment, Children Were Divided Into 4 Groups. In This Study Of Speech Development And Hearing By Tonal Audiometry, Children With An Average Hearing Range Of 500 To 4000 Hertz (Gs) Were Designated As Having 3 Levels Of Hearing Loss, With 85 Decibels (85 Decibels) As The Boundary Between Hearing Loss And Deafness. Db) Set The Level.

Under The Leadership Of S. A. Zikov, A Communicative System Of Teaching Based On Subject-Practical Activity Was Established.

The Concentric Method, Developed By F. F. Rau And N. F. Selozina, Is An Original Method Of Teaching Deaf Children. It Is Based On A Shortened System Of Phonemes, Which Gradually Moves From The Exact Pronunciation Of Words To The Pronunciation Of The Words.

R. M. Boskis And L.I. The Tigranovas Believe That The Degree And Nature Of Speech Defects In Hearing Impaired Children Depends On The Interaction Of Three Factors. These Are The Following Factors-

- Severity Of Injury.
- The Emergence Of Time For Education And Upbringing
- Education And Training Conditions.

According To Them, The Level Of Speech Development Of Such Children Can Be Shown In A Wide Range. It Can Range From Incoherent Mumbling To Broad Phrase Agrammatism And Without Agrammatism.

A Number Of Scientists Focus Their Attention On The Following Issue, That In Children With Hearing Impairment, In Most Cases, Side Deviations Are Seen. Accordingly, They Are Divided Into Two Main Groups-



- Children With Hearing Impairment Who Have Preserved Their Intellectual Development,
- Children With Certain Developmental Disabilities (One Or More) - Intellectual Impairment, Visual Impairment, Locomotor Apparatus Impairment, Emotional-Volitional Impairment.

During The Development Of The Science Of Deaf Pedagogy, Scientists Approached The Problem Of The Organization And Content Of Education Of Children With Hearing Impairment In Special Educational Institutions From Different Positions.

Also B.D. Korsunskaya's Research Was Devoted To Issues Of Improving The Effectiveness Of Teaching Deaf Children In Preschool Educational Institutions. In 1964, Under His Leadership, The "Program Of Education For Deaf Children Of Preschool Age" Was Developed. Implementation Of The Program Has Had A Positive Effect On The Comprehensive Development Of Deaf Children. The Development Of Speech Is Closely Related To The Types Of Children's Activities. From The Earliest Times, Teaching To Read And Tell Stories Was Considered A Means Of Moral And Intellectual Development Of Children.

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