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Doctoral Dissertation

Articulatory Abilities as a Determinant of Psychosocial Functioning of Adolescents in the School Environment

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Summary

This dissertation originates from a combination of passion for the profession of a speech therapist and special education teacher, as well as scientific interests, which led the researcher to reflections indicating insufficient speech therapy support provided to adolescents in schools and too little interest in this topic by other specialists. This work concerns articulatory abilities[1] defined as a specific predisposition of every person conditioning the possibility of producing phonemes, constituting the basis of the communication process and psychosocial functioning in the dimension of self-esteem, social interactions, level of socialization, and behavior assessment. The term articulatory abilities was deliberately used to emphasize the potential and capabilities of adolescents, instead of focusing on diagnosed articulatory irregularities.

This work is characterized by its interdisciplinary nature. It combines issues addressed in the field of social sciences, incorporating knowledge from pedagogy (in the context of educational and upbringing processes and their impact on child development, as well as a source of knowledge on methods of dealing with children and adolescents), psychology (as a science concerned with aspects of human development and the psychosocial functioning of students, including their behaviors, self-esteem, motivation, emotions, and social relationships, and the development of speech, which is described in developmental psychology), sociology (because it focuses on the social functioning of youth in the school environment, as an institution), and speech therapy (as a branch of special education that deals with all aspects of speech, and in the context of this work, the lowered level of articulatory abilities and its consequences for psychosocial functioning).

The work can be divided into two parts: theoretical considerations and methodological-research considerations. Efforts were made to ensure that the entirety formed a comprehensive study on the significance of speech and its impact on the psychosocial functioning of youth in the school environment in the context of speech therapy and pedagogy. The first chapter focuses on situating speech therapy within pedagogy, presenting selected theories of speech development and classifications of speech disorders. An analysis of speech development from a speech therapy perspective was also conducted, along with an explanation of terminology related to articulatory abilities and speech disorders.

Chapter 1. *Speech as a Subject of Interest in Speech Therapy and Pedagogy (Social Sciences)* focuses on presenting speech as a subject of interest in these two fields, emphasizing

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[1] This definition points to the relationship of articulatory abilities to the skill of controlling and precisely executing movements of speech organs in order to produce specific sounds (phonemes) and to create understandable and articulately correct sound structures (utterances).

the interdisciplinary nature of speech therapy, which integrates achievements from medical sciences (such as neurology, phoniatrics, audiology), psychology (including developmental psychology and neuropsychology), linguistics (including applied linguistics and sociolinguistics), and pedagogy. Speech therapy, developing at the intersection of these disciplines, focuses on the development of speech and communication, centering on individuals with speech disorders (reduced level of articulatory abilities) or those in need of refining their language skills.

The discussions present the connection between speech therapy and pedagogy, demonstrating how collaboration between these disciplines contributes to effective support for individuals with speech and communication difficulties. It is emphasized that speech therapy utilizes pedagogical methods in its activities, and the cooperation of speech therapists and educators in the school environment is crucial for the comprehensive development of speech and communication.

The author emphasizes that speech therapy, originating from practice, became a science thanks to the work of pioneers associated with pedagogy, such as Jan Siestrzyński, Jan Baudouin de Courtenay, Benedykt Dylewski, Franciszek Popioł, and Genowefa Demel, whose contributions significantly influenced the development of speech therapy and its integration with pedagogy. It was also highlighted that speech therapy is not limited to articulatory aspects alone but encompasses the entire communication process, considering speech as a complex entity composed of linguistic competencies and communicative competencies. The holistic approach to speech therapy and the necessity of considering biopsychosocial aspects in the support process are accentuated. The dynamic development of contemporary speech therapy is based on scientific research and utilizes advanced techniques, extending beyond the traditional scope of articulation disorders. The importance and necessity of continuous professional development for speech therapists in light of ongoing changes and scientific findings are also stressed.

The subsequent sections of the thesis focus on theories and concepts regarding the development of speech, highlighting its pivotal role in human development and the ability to achieve success in various areas of life. The phenomenon of speech has long fascinated researchers and contributed to the creation of diverse theories aimed at understanding how humans, as the only species, have developed this skill. In a historical context, interest in speech development dates back to antiquity, where natural experiments involving isolating children from society aimed to determine how children begin to speak. These early studies

did not yield the expected results because they neglected the aspect of social interactions, which are crucial for speech development.

The chapter presents varied approaches to speech development. It includes B.F. Skinner's behavioral approaches, the biological (nativist) approaches of Noam Chomsky, David McNeill, and Eric Lenneberg, as well as the neurobiological approach represented in the field of speech therapy by Jagoda Cieszyńska-Rożek, and the social-interactional approaches of Albert Bandura, Jerome S. Bruner, and Rudolf H. Schaffer. For the subject matter and purpose of the research, Rudolf H. Schaffer's social-interactional concept is the closest, emphasizing the importance of social and environmental interactions in the development of articulatory abilities. It assumes that speech acquisition is embedded in a social context and through the active participation of the developing child. At the same time, it does not dismiss the influence of biological factors that condition the acquisition of language skills. It accepts that the use of language is an interplay of innate predispositions with social experiences. The simultaneous interplay of biological and social factors allows for a holistic view and the consideration of all factors influencing development, life, and human functioning.

The effort was made to demonstrate that contemporary knowledge of speech development is based on an interdisciplinary and eclectic approach that integrates various theories and perspectives. In the context of research on articulatory abilities as a determinant of the psychosocial functioning of youth in the school environment, understanding them becomes particularly important.

Speech therapy, focusing on prevention, diagnosis, and treatment, utilizes terms such as speech/language development and speech/language disorders. Considering the aspect of speech development necessitates defining and distinguishing the concepts related to speech and language. Language is defined as a communication tool, constructed from a system of signs and rules used by a linguistic community. Speech, on the other hand, is described as the practical application of language in communication. Differentiating between language and speech allows for a better understanding of the communication process and more effective diagnosis, therapy planning, and collaboration among specialists - speech therapists and educators. Speech development is presented as the process of acquiring the ability to communicate using language, encompassing four aspects: phonological, semantic, grammatical, and pragmatic, each developing according to its own laws. The stages of speech development according to Leon Kaczmarek are also presented, starting from the melody stage, through the word and sentence stage, to the specific child speech stage. The division initiated by L. Kaczmarek has been refined and expanded by speech therapy specialists who, based on research and observations, made

further updates and extensions, adapting it to the continuously updated knowledge and needs of speech therapy and educational practice. Expanding the perspective on the stages of speech development allows for precise monitoring of a child's progress and planning appropriate therapeutic strategies. This work also introduces three classifications known from the literature and widespread among educators and speech therapists, proposed by Jacek Błeszyński, Józef Porayski-Pomsta, Jagoda Cieszyńska-Rożek, and Marta Korendo. The diversity of approaches emphasizes the differences and complexity of approaches to describing the stages of a child's speech development, as well as the significance of each for effective speech therapy intervention. Overall, it highlights the importance of a holistic approach to speech development in the speech therapy context.

Speech disorders are perceived as multidimensional, encompassing both articulatory abnormalities and general difficulties in the language communication process. Knowledge of speech disorder classifications is essential for the proper identification and therapy of speech disorders in students. In speech therapy and educational literature, various classifications of speech disorders exist, including symptomatic, etiological, and mixed. They differ from each other and represent different theoretical approaches. Examples of speech disorder classifications discussed in the work include the symptomatic classification by L. Kaczmarek, the etiological classification by Irena Styczek, and the mixed approach by Halina Mierzejewska and Danuta Emiluta-Rozya. The symptomatic classification is based on the phonetic form of speech in relation to the phonetic norm, while the etiological classification focuses on the etiology and pathomechanisms of speech disorders. The subsection also mentions the speech therapy classification by Stanisław Grabias and international classifications such as ICD-10 and DSM-5. The crucial role of knowing these classifications in the work of speech therapists and educators is emphasized. Understanding and applying appropriate classifications enables more effective support for students with speech disorders, which translates into their better functioning in society.

The final subsection focuses on terminological explanations related to articulatory abilities and speech disorders. Abilities are presented as individual differences that influence the outcomes achieved by people with the same motivation and preparation. Adopting a cognitive-developmental perspective, abilities are defined as a person's potential, enabling constructive interactions with the environment. Various approaches to abilities can be found in the literature, including as fundamental intellectual properties, characteristics of cognitive processes, individual differences, or current skills.

Articulation is described as the process of creating speech sounds, which is related to the movements of the speech organs. The author's definition of articulatory abilities includes the predisposition to produce phonemes, forming the basis of the communication process. This definition highlights the articulatory abilities as the skill to control and precisely execute movements of the speech organs to produce specific sounds (phonemes) and to create understandable and articulatorily correct sound structures (utterances). Articulatory abilities enable self-expression through verbal communication.

In the literature, speech defects are presented as disturbances in the way phonemes are produced, leading to dyslalia - disorders involving incorrect pronunciation of phonemes. The term dyslalia encompasses various types of speech disorders of different etiologies. There are several classifications of dyslalia, including etiological, quantitative, qualitative, linguistic, and phoniatric. Each focuses on different aspects of speech disorders. For the analysis of conducted research, the phoniatric classification was chosen as the most appropriate due to its widespread use and acceptance in diagnostic practices. The author of the thesis also developed the causes of dyslalia, classifying them as anatomical, neurological, perceptual, functional, and environmental. These causes cover a wide range from defects in the structure of speech organs, through brain damage, hearing problems, to environmental factors such as inadequate stimulation of speech development.

To summarize, the chapter provides detailed terminological explanations concerning articulatory abilities and speech disorders, crucial for understanding these issues in the context of speech therapy and education. Grasping these concepts is vital for effective diagnosis, therapy planning, and educational support for individuals with speech impairments.

The second theoretical chapter focuses on the psychosocial development of adolescents, addressing the concept of developmental change and theories of human development at various life stages. It pays special attention to E.H. Erikson's theory of psychosocial development, justifying its selection for the author's research. Additionally, it includes a psychosocial characterization of adolescence, analyzing components that shape identity during this developmental period.

The analyzed chapter focuses on highlighting theories and concepts of human development, with special emphasis on those that pertain to the psychosocial functioning of adolescents. An effort was made to compile the most crucial concepts present in developmental psychology, which are importantly also utilized in the field of educational sciences. Detailed attention was given to the characterization of a selected key theory for the conducted research.

The concept of development and developmental change was analyzed. Development is defined as change, transformation, or alteration, the direction of which is independent of their evaluation. Researchers focus on changes occurring in human life in various aspects, from physical to social. Development is characterized by changes that signify growth in various activities, functions, and psychological processes.

The work explains that the essence of development lies in permanent, irreversible, and autonomous changes. Developmental changes are categorized into physical, cognitive, and social, each with its own range and characteristics. Anna Brzezińska distinguished four levels of developmental changes: social, personality, cognitive, and behavioral, emphasizing their interdependence. The types of developmental changes according to Paul Baltes were also discussed, distinguishing between universal, common, and individual changes. Universal changes relate to general changes for a given age group, common changes are associated with normative biological and social events, and individual changes are unique to the individual. A holistic approach to development considers various dimensions of human existence: organism, psyche, community, and spirituality. The importance of an individual's own activity in the development process, as well as the variability and individuality of factors determining development, is emphasized.

The effort was made to emphasize the complexity and multidimensionality of development, conceiving it as a continuous process that encompasses various spheres of human life and is shaped by both internal and external factors.

Understanding psychological theories and concepts of development is crucial for educators and speech therapists, as it enables a better comprehension and effective work with students. These theories are widely applied in education and help in understanding students' needs and supporting them in achieving their full developmental potential. It's emphasized that a uniform division of development concepts is not possible due to the diversity of theoretical paradigms. Theories and concepts of development are classified based on various criteria, such as the type of developmental changes, the nature of the developmental process, stages, direction, purposefulness, autonomy, or the duration of changes.

The work describes the following theories and concepts of human development: psychoanalytical (Freud's theory of psychosexual development, Jung's theory of individuation, Erikson's theory of psychosocial development); learning/behavioral (Skinner's theory of learning (instrumental conditioning), Bandura's theory of social learning); cognitive-developmental (Piaget's cognitive-developmental theory, Kohlberg's theory of moral development, the information processing theory, Labouvie-Vief's concept of self-development,

Karmiloff-Smith's concept of the mind); humanistic (Maslow's concept of self-actualization, Rogers's concept of self-image); sociological (Havighurst's concept of developmental tasks, Levinson's comprehensive concept of life cycle); contextual-dialectical (Vygotsky's cultural-social concept of development, Riegel's dialectical concept of development, Lerner's contextual concept of development); ethological (biological) (Lorenz's concept of innate mechanisms, Bowlby's concept of attachment development, Wilson's sociobiological concept) and ecological (Bronfenbrenner's ecological theory of development).

For speech therapists and educators, it is crucial to understand that human development is a complex process that can be viewed from various perspectives. The diversity of theories and concepts of development reflects the complexity of human life and the multitude of developmental paths. Familiarity with these theories allows professionals to better tailor their working methods to the individual needs and developmental possibilities of their students, thereby more effectively supporting their educational, social, and emotional development.

All currently recognized theories and concepts of human development differ from each other as they present their own assumptions and interpretations, highlighting the action of different factors and mechanisms leading to developmental changes. There are also discrepancies regarding the duration of development and the key, critical moments in a person's life that decide their later psychosocial functioning. When choosing a particular theory of development to be applied in the field of educational sciences, it is crucial that the selected concept allows for the design of actions leading to the optimal development of the individual. For the purposes of these considerations, it is important to select a theory that enables the assumptions regarding the psychosocial functioning of youth to be contextualized. Key factors include focusing on the possibilities and challenges of the surrounding reality, whose realization allows for the best possible function and the accomplishment of tasks associated with the period of adolescence leading to the achievement of positive and expected outcomes, i.e., developmental changes. For this purpose, the theory of psychosocial development by E.H. Erikson was chosen.

This theory stands out among other theories of human development as it covers the entire lifespan, from infancy to late old age, and the distinguished stages are shaped by social influences interacting with a psycho-physically maturing organism.

This work focuses on the psychosocial functioning of youth. Attempting to frame the discussed issue within E.H. Erikson's concept of psychosocial development, an original compilation was developed, presenting the experienced developmental crises and their

consequences for a person's psychosocial functioning, with a particular focus on the psychosocial functioning of adolescents.

Table 1. Consequences of Experiencing Developmental Crises for Psychosocial Functioning

Phase	Developing ego trait	Developmental crisis - characteristics	Consequences in the psychosocial functioning domain
I	Basic trust vs. basic mistrust	Oral-sensory phase. It is based on the dependency on the caregiving process during the first year of life, primarily in the relationship with the mother. Cultural and religious determinants influence the way child development is directed. Basic trust and its development are dependent on external predictability as well as the internal quality of relationships with close individuals (primarily the mother). Manifestations of trust in a child include: deep sleep, ease of taking in food and eliminating waste, as well as having faith in their own agency when exploring the surrounding reality according to their abilities. Basic mistrust develops based on a sense of threat to homeostasis arising from inadequate provision of care to the child. Integration of the oral-sensory stage with all subsequent stages fosters in adults faith, realism, trust, and love.	Basic trust conditions: - Attitude towards oneself and the world, - justified trust in others, - sense of self-assurance, - reduced susceptibility to dependencies and tendencies towards self-deception, - faith, realism, trust, and love in adult life. Basic mistrust conditions: - sense of conflict with oneself and the world, - withdrawal (psychological breakdown), - unmet needs related to satisfying oral receptors during feeding can lead to a child's frustration manifested in thumb sucking or disruption in relationships with significant others, - experience of drastic loss of mother's love through abrupt cessation of breastfeeding can lead to acute childhood depression or feelings of grief resulting in depressive behaviors in later years.
II	Autonomy vs. shame and doubt	The anal-muscular phase. The developed and properly continued stage of early trust allows the child to shape autonomy. The child begins to become increasingly aware of the internal states experienced, which helps in the development of their independence. Psychomotor development allows for learning to control one's own body. An important aspect of this period is toilet training, which if conducted too strictly or too quickly by parents, can lead to a sense of loss of autonomy. Autonomy is shaped by supporting the child in activities related to making their first choices (such as clothing, food, and play), thus fostering a sense of agency.	Autonomy conditions: - freedom of self-expression, - engagement in cooperation, - experiencing love, - kindness towards others, - sense of pride, - sense of fairness in life. Shame and doubt condition: - obsessive self-control, - obsessive-compulsive disorder, - paranoid anxieties, - persecutory delusions, - lack of faith in one's own abilities.

		Inadequate satisfaction of the need to support a child's autonomy and criticizing them can shape feelings of shame and doubt.	
III	Initiative vs. guilt	The locomotor-genital phase. The achieved autonomy, giving the child a sense of being a person, allows them to show initiative in finding out what kind of person they are to become. The development of a child is determined by three fundamental aspects: the ability to move, the development of speech and language, and imagination. Children, in the course of developing self-observation and the desire to direct themselves, primarily take initiative through directing play and social interactions. A conflict with parents arises, involving identification with the parent of the same gender and seeking the attention of the parent of the opposite gender. Natural failure leads to feelings of guilt and fear of punishment. This is the preschool stage, during which children often have the opportunity to collaborate with other children, and their play is based on constructing and planning. During this period, children also identify with the teacher, perceiving them as a role model to emulate. Achieving success at this stage is associated with developing a sense of capability and the ability to lead oneself and others. Encountered setbacks translate into feelings of doubt and guilt.	Initiative conditions: - stabilization of moral sense, - setting realistic life goals, - preparation for the role of parent, - identification of one's gender, - shaping an independent conscience, - building self-trust, - sense of responsibility, - developed appropriate attitude towards institutions, functions, and roles. Feelings of guilt condition: - exposure to psychosomatic illnesses in adulthood, - displaying intolerance towards one's own and others' behaviors, - moralizing others and oneself, leading to prohibiting any displays of initiative, - treating others as one would not treat oneself, - self-limitation that deviates from living in accordance with internal abilities, beliefs, and emotions.
IV	Industriousness vs. inferiority	The latency phase. The achievements of initiative allow the child to engage in the process of developing interests. The period of starting formal education and acquiring academic skills and cultural norms. These activities cultivate perseverance and patience in the child. School plays a significant role in preparing the child for professional roles. The trait of industriousness develops, which is important in social functioning,	Industriousness conditions: - a positive attitude towards people and work undertaken in adulthood, - motivation to engage in learning and work, - persistence in actions undertaken and seeing them through to completion, - belief in one's own ability to cope with encountered difficulties, - focus on achieving success. Feelings of inferiority condition:

		as it involves cooperation, division of labor, and respect for diversity of opportunities. The teacher plays an extremely important role, as their task is not only teaching but also recognizing and addressing potential threats to the child's development. These include, among others, the student's sense of inferiority and the belief that they will never be good enough; overly strong identification with the teacher and assuming the role of the favored and distinguished student, which guarantees a privileged position without the possibility of experiencing failures. The development of a child should largely be based on a balanced division of learning and play. Through play, children gain experience, skills in experimenting, planning, sharing, and discover and develop their interests. Experiencing failures is associated with feelings of inferiority and the accompanying sense of rejection by the peer group and loss of one's role within the group. The latency period is called the calm before the storm because the transformations occurring during it are not as abrupt as in earlier stages and later maturation.	- lack of belief in one's own abilities, - withdrawal from interpersonal contacts, - undermining of one's own autonomy, - conformity, - functioning limited solely to a sense of obligation to perform work.
V	Identity vs. role confusion	The puberty phase. Dominated by intense periods of maturation and seeking answers to the question *Who am I?* both in one's own perception and in the eyes of others. Shaping self-esteem. The most significant period of forming ego identity is the process of integrating previous identifications with the instability of libido and inherent talents and opportunities offered by social roles undertaken. Engaging in new roles (experimentation) to determine oneself. The most important task is choosing a future career path. Strong identification with a chosen peer group, searching for first loves. Tolerating situations of excluding someone from the peer group due to their differences, social status, or background.	Identity conditions: - undertaking and fulfilling life and professional tasks in accordance with social expectations, - identification with professed values, - achieving mature identity necessary for functioning in adulthood, - self-awareness, - sense of independence, - sense of certainty and control over one's actions, - sense of self-worth, - positive self-esteem.

		Moratorium is a psychosocial phase between childhood and the morality assimilated in childhood and adulthood and the ethics of a mature person.	
VI	Intimacy vs. isolation	Early adulthood. During this stage, further education is usually pursued or the first professional job is undertaken. The most important aspect of this period is forming lasting, close relationships. The necessity of engaging in an intimate relationship can bring about fear of losing the achieved sense of identity (self) and lead to withdrawal. Achieving intimacy in a relationship is the foundation of a healthy relationship and readiness to accept offspring.	Intimacy conditions: - the ability to engage in a lasting and close relationship, - creating a family, - self-realization in relationships with others. Isolation conditions: - social withdrawal, - feelings of loneliness, - depression, - fear of intimacy in relationships, - maintaining solely stereotypical and formal interpersonal relationships.
VII	Generativity vs. stagnation	Adulthood. The main task of this period is generativity, understood as having children or fulfilling this need through scholarly, cultural, or other activities. Difficulties in developing generativity may stem from earlier experiences, such as erroneous identifications with parents, excessive self-love based on persistently created self-personality, and lack of belief in one's ability to impart desired trust to the child towards the community.	Creativity conditions: - a sense of fulfillment through generativity, - feeling of satisfaction, - feeling of involvement in creating reality, - belief in one's ability to raise offspring according to accepted social norms. Stagnation conditions: - obsessive need for pseudo-closeness, - infantilization, - sense of stagnation, - feeling of impoverishment of interpersonal relationships.
VIII	Ego integrity vs. despair	Maturity. The period focused on reflecting on life, accepting oneself, and the people who have been close. Coming to terms with the past. Lack of acceptance turns into a sense of anxiety and fear of death. Despair stems from realizing there's no time to start another life and try alternative paths leading to integrity.	Ego integrity conditions: - sense of contentment, - feeling of fulfillment, - pride in life achievements, - acceptance of life. Despair conditions: - regret caused by what one did not do or what one did, - sense of loss, - misanthropy, - disdainful dissatisfaction with specific institutions and individuals, - feelings of bitterness and lack of control over the past, - self-contempt.

Source: Own elaboration based on Erikson (2000, 2002, 2004).

The concept of psychosocial development by E.H. Erikson posits that human existence depends on three mutually complementary processes of organization: biological, psychological, and social. Erik H. Erikson focuses on the psychological process (ego synthesis) and the communal process of cultural organization (communal ethos), analyzing the development of the ego and its distortions caused by social life processes.

This theory is significant in the context of work concerning the psychosocial functioning of youth because it emphasizes the importance of psychosocial aspects of development as equivalent to biological ones. It broadens the perspective to encompass the entire lifespan of an individual, from childhood to old age, considering the construction of the past and future as integral parts of personality. This theory is crucial for understanding the period of adolescence, which is recognized as pivotal in personality development. The fifth stage, occurring during adolescence, highlights significant tasks facing young people. During this time, adolescents enter the complex world of adolescence, search for their identity, and attempt to resolve the crises they encounter. The way adolescents cope with these challenges has a significant impact on their future psychosocial life.

The choice of Erikson's psychosocial development theory for a study focusing on youth is justified because it provides a comprehensive view of the psychosocial processes accompanying adolescence. Understanding these processes is essential for effectively supporting young people by educators and speech therapists, enabling them to better understand and address the needs of young individuals at a crucial stage of their development.

The psychosocial functioning of adolescents during adolescence involves the ability to cope with life challenges in the context of emotions, thoughts, behaviors, and social relationships. Understanding this process for educational and therapeutic work helps in better understanding the behaviors and reactions of adolescents in the school environment and enables faster recognition of their difficulties. Awareness of typical problems and threats occurring in adolescence allows for more effective building of positive relationships based on understanding and respect.

The period of adolescence is a transitional time between childhood and adulthood, characterized by intense physical, psychological, emotional, and social changes. Erik H. Erikson emphasizes the importance of identity formation at this age. Understanding the processes occurring during this period allows specialists to look at the behaviors of adolescents from a new perspective.

Adolescence is associated with changes that are often a source of stress and uncertainty for young people. Support from parents, specialists, and educators in providing reliable

information and understanding the problems of young people is crucial. Educational problems arising from differences in biological maturation between male and female students in one class can affect their school performance.

In the work of educators and speech therapists, understanding the transformations occurring in various spheres of young people's lives is fundamental because they are interconnected and influence their functioning on many levels. Educators and parents should be aware of the specifics of these changes to effectively support teenagers during this challenging period. The considerations undertaken are limited to the most important issues related to adolescence in the context of selected concepts of human development. The focus of the work is on characterizing the period of adolescence in terms of biological, emotional, cognitive, moral, social, and personality development.

Identity, according to E.H. Erikson, is understood as the continuity and coherence of one's own person, as well as the recognition of this continuity by others. During adolescence, the ego develops, influencing the perception of oneself and the social environment. The adolescent period is crucial in shaping identity because it is a time when young people experience inconsistencies and conflicts arising from new physiological and cognitive abilities, as well as social demands.

Identity crisis during adolescence is a pivotal moment that requires a moratorium, a period of postponement, for young people to experiment and reflect. Resolving this crisis leads to achieving mature identity, which initially is group-based and then becomes individual. Failure to resolve this crisis can lead to negative consequences in further development.

Shaping identity in adolescence involves processes of projection, introjection, and identification. These stages of ego development relate to relationships with adults and the absorption of childhood identifications. Teenagers seek answers to the question *Who am I* and identify with specific values. During this time, internal traits become more important than external ones, influencing the perception of one's self in various social roles.

Negative identity can arise from unfavorable developmental conditions, such as self-fulfilling prophecies or social pressures. Adolescents who struggle with these challenges often adopt a negative identity as a way of coping with conflicts. The sense of identity in adolescence encompasses elements of unity, continuity, and reciprocity. This process is gradual and involves experimenting with different roles and shaping lasting attitudes and values. The ultimate identity emerges from a combination of significant identifications from the past and new social experiences.

Understanding these processes is important for educators and speech therapists to better support adolescents during this crucial period of identity development.

Chapter 3. *Speech and Psychosocial Functioning of Adolescents in the School Environment - Literature Review* focuses on the relationship between speech and the psychosocial functioning of adolescents in the school environment. The focus is on the impact of speech on human life, its axiological dimension, and a detailed discussion of the psychosocial functioning of adolescents with speech disorders in the context of functioning in the school environment. The scale of speech disorders among adolescents and their impact on various areas of psychosocial functioning is presented.

Speech, as a psychosocial phenomenon, plays a crucial role in shaping human identity, especially during adolescence. Speech disorders can lead to psychological and psychosocial problems, including social withdrawal and diminished self-worth. Communication, being a social process, is fundamental for building relationships and participating in communities. Self-esteem and self-perception are important for engaging in social and educational activities and influence relationships with others and life satisfaction. Adequate self-esteem is associated with positive personality traits, such as realistic thinking and willingness to cooperate, while low self-perception can lead to negative attitudes and behaviors. The relationships between speech and psychosocial, emotional, and moral development impact the quality of adolescents' functioning in various spheres of life.

Verbal speech is a unique characteristic distinguishing humans, enabling the reception and transmission of information, and it is the most highly developed communication skill in human evolution. It allows for the establishment of lasting social relationships and the development of new skills. It forms the basis of communication, relying on cooperation and socially accepted rules. Its development is associated with the proper functioning of the nervous system and depends on environmental factors in which the child is raised.

Speech is understood as a set of activities involving language, serving to explore the world and convey its interpretation to others. It is synonymous with language behavior, encompassing both internal speech (cerebration) and external communication (verbal communication). The development of speech depends on higher cognitive processes and is closely correlated with memory, attention, imagination, and thinking.

Normal speech development is crucial for psychosocial functioning. Insufficient acquisition of language and communication skills can lead to difficulties in social interactions and negatively impact the quality of communication. Language and communication competence are essential for adapting speech adequately to the communicative situation

and interlocutor, which significantly influences fulfillment, satisfaction, and social relationship quality.

The complexity and value of verbal speech are often appreciated only in the event of its loss or difficulties. Speech is an invaluable skill that permeates all spheres of psychological and social life. It is linked to cognitive, emotional, and social functioning, which enable individuals to perceive reality, communicate, and participate in the process of socialization.

Speech has several key functions. The representative function of speech relates to physical, psychological, and social reality, while the communicative function serves the purpose of human communication. The development of speech is closely linked to the level of cognitive development and plays a significant role in situating the individual in society. It enables action guidance, moral conduct orientation, deepening of sensory perception, and thinking. Speech is the basis for the proper development of cognitive and social processes. Lack of speech or speech disorders can lead to difficulties in personality development, fulfilling social roles, acquiring knowledge, self-fulfillment, and self-perception. The consequences of speech disorders are particularly important in the context of psychosocial and educational functioning, especially among adolescents. Speech disorders can lead to social exclusion, affecting communication both verbally and emotionally. Proper pedagogical and logopedic support ensures full participation in social life.
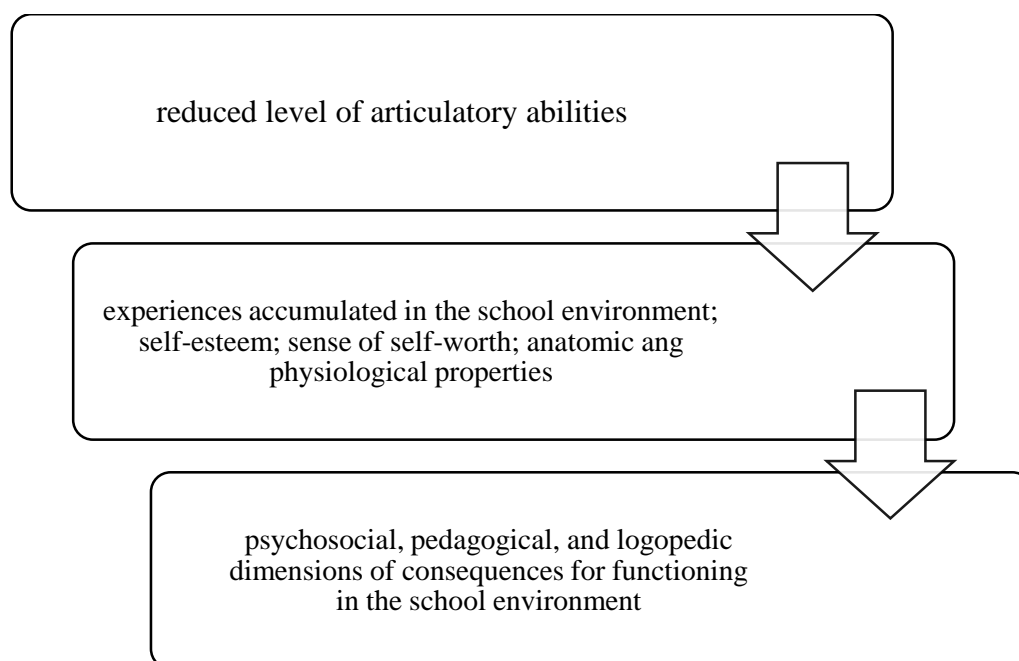
Awareness of the consequences of speech disorders for psychosocial and educational functioning requires considering the needs, abilities, and expectations of individuals dealing with these difficulties in the therapeutic process. Therefore, in these considerations, an attempt was made to describe and compile a review of research illustrating the dimension and effects accompanying speech disorders.

The noticeable increase in diagnosed deviations from the norm in speech development and its execution is concerning, as indicated by the research results presented in this work. Therefore, any scientific research activity seeking solutions ready to be implemented in speech therapy practice is highly important. The results of such research efforts can prove extremely useful in activities aimed at reducing the various effects of speech disorders from both an individual and societal perspective. They can also contribute to improving the quality and effectiveness of speech therapy interventions. Knowledge regarding the prevalence of speech disorders among students is important for educators and speech therapists because specialists who are aware of different types of speech disorders and their impact on the learning process are better prepared to understand the behavior and needs of their students.

The presented text aimed to illustrate the consequences faced by students with speech disorders in the school environment. It addressed the most important areas of functioning: psychosocial and educational. The decision was made to broaden the perspective of the discussions to include the speech therapy aspect, which encompasses the anatomical and physiological aspects relevant to speech therapists working with students with speech disorders. It is noteworthy that the consequences of speech disorders described in the literature are characterized as negative. These considerations lead to the conclusion that speech disorders are associated with experiencing undesirable effects. Bearing in mind that speech plays a significant role in the development of every individual, any deviations from the norm affect overall functioning in all areas of life.

The process leading to consequences affecting the functioning of students with speech disorders in the school environment is presented (Chart 1). An attempt was made to illustrate the decisive role of experiences accumulated by students with reduced articulatory abilities in the school environment, including interactions with peers, educational achievements, demonstrated behaviors, as well as the important role of self-esteem, self-esteem and anatomical and physiological properties related to the structure and efficiency of the articulatory apparatus. that determine the level of functioning of young people in the school environment in the psychosocial, educational and speech therapy dimensions.

Chart 1: A process illustrating the consequences of reduced articulation skills in students affecting functioning in the school environment

reduced level of articulatory abilities

experiences accumulated in the school environment; self-esteem; sense of self-worth; anatomic ang physiological properties

psychosocial, pedagogical, and logopedic dimensions of consequences for functioning in the school environment

Source: Own study.

To further specify the proposed chart and illustrate a broader perspective of the consequences of reduced level of articulatory abilities for the functioning of students in the school environment, a compilation of effects resulting from the experienced lowered level of articulatory abilities in psychosocial, pedagogical, and logopedic dimensions was developed.

Table 2. Consequences of Reduced Articulatory Abilities

Consequences of Reduced Articulatory Abilities for the Functioning of Students in the School Environment	
Dimension	**Konsequences**
Psychosocial	- decreased self-esteem - lowered sense of self-worth - avoidance of public speaking - displaying socially unacceptable behaviors - difficulties in initiating and maintaining interpersonal relationships - higher levels of anxiety, shyness - nervousness, fear of speaking - stress and apprehension about finding oneself in a new, unfamiliar situation - inability to pursue vocations reliant on voice work - exclusion from activities undertaken in the classroom and school
Pedagogical	- difficulty in learning - risk of dyslexia - errors in note-taking from listening and memory - lower grades - decreased motivation to learn - fear of academic failure - lower grades in conduct - perception of the student as less capable - assessment of the student as unprepared for lessons
Logopedic	- malocclusion - decreased muscle tension - improper resting position of the tongue - risk of cavities - abnormal breathing - improper food intake - postural defects - changes in facial bones - more frequent upper respiratory tract infections - improper functioning of the digestive system - oxygen deprivation to the nervous system, manifested by headaches, difficulty concentrating, fatigue, fluctuations in blood pressure, cardiovascular diseases

Source: Own study.

While the theoretical considerations and research analyses presented indicate the occurrence of numerous adverse consequences of decreased articulatory abilities that children and adolescents must contend with, the occurrence of specific effects depends on individual predispositions, such as personality traits, perceived support from close individuals, or experiences of each student with reduced level of articulatory abilities. It would be erroneous to assume that the mentioned consequences apply to every individual with articulation impairments. The developed framework may prove helpful in analyzing

the obtained data in one's own research and determining the severity of specific consequences of speech disorders.

In the literature, numerous examples of the consequences of speech disorders affecting social, emotional, physical, psychological, and cognitive functioning can be found. This study focused on compiling research on these aspects, which were subjected to analysis, namely: self-esteem, peer relationships and educational achievements, behavior, emotional functioning, and social development. The considerations made in this chapter allowed for a comparison of ways to counteract the undesirable effects of reduced level of articulatory abilities affecting the psychosocial, pedagogical, and logopedic functioning of students in the school environment.

Table 3. Ways to counteract the undesirable effects of reduced level of articulatory abilities affecting the psychosocial functioning of students in the school environment

Supported area	Actions
Psychosocial	- building self-esteem - cultivating belief in one's own abilities - strengthening internal motivation to act - developing communication skills (initiating and maintaining interactions) - building on the student's resources - providing a sense of safety in the classroom and school - offering emotional support and understanding - considering environmental factors influencing the student's functioning in the school environment
Pedagogical	- individualizing the work - encouraging participation in classroom discussions (according to the student's abilities) - involving students in classroom and school activities - considering educational difficulties in assessment - recognizing effort, contribution, and motivation to learn - raising awareness among parents/legal guardians about potential consequences and collaborating in supporting students' education
Logopedic	- noticing any speech and communication irregularities and referring these students to a school speech therapist - regular attendance at school speech therapy sessions - providing holistic speech therapy support tailored to the needs and abilities of the student - speech therapy activities supporting the student's educational process - collaboration between the school speech therapist, teachers, and other specialists (educational psychologist, special education teacher) - regular practice of recommended speech therapy exercises at home - speech therapy prevention - collaboration with parents

Source: Own study.

The presented compilation was developed based on all the issues presented in this paper. The motivation was to create guidelines to counteract the undesirable effects of reduced articulation abilities affecting the psychosocial functioning of students in the school environment at every educational stage. These guidelines can be useful for teachers and school

specialists and contribute to raising awareness among parents and legal guardians about the consequences their children face when struggling with proper pronunciation and communication.

The methodological and research assumptions were presented in the methodology section. The subject and aim of the research were described, along with the strategy and scheme of the conducted research, including research questions and hypotheses. The methods of data collection and analysis, as well as the sampling methods, were outlined.

The final chapter was dedicated to the analysis of the author's own research. The research results were presented, along with their interpretation in the context of theoretical considerations presented in previous chapters. This allowed for understanding the relationship between articulation abilities and psychosocial functioning of adolescents.

At the outset, the interdisciplinary nature of the work was outlined, combining both the logopedic and pedagogical dimensions. This multidirectionality primarily stems from the necessity to consider all aspects relevant to the designated topic and research goal, which was to understand the relationship between articulation abilities and the psychosocial functioning of adolescents in the school environment. When analyzing the aspect of psychosocial functioning, reference was made to self-esteem, social interactions, the level of socialization, and behavioral assessment. The aspect of articulation abilities referred to the ability to correctly pronounce all sounds.

In this study, an attempt was made to investigate the level of articulation abilities among adolescents and their psychosocial functioning in the school environment. The aim was to determine whether there is a relationship between articulation abilities and the psychosocial functioning of adolescents in the school setting.

Based on the obtained data and their analysis, the following conclusions were drawn:

- The vast majority (81%) of the youth participating in the study have normal articulation abilities, meaning they articulate all sounds correctly.
- Among the group of youth diagnosed with decreased articulation abilities (19%), the most commonly incorrectly articulated sounds are those of the sibilant series and the sound [r], followed by sounds of the fricative series. The decreased level of articulation abilities may involve individual sounds within series or all sounds within series, or collectively sounds from two series as well as sounds from the fricative series and the sound [r].

- The most common occurrence of decreased articulation abilities is observed in the domain of sigmatism (14%) and rhotacism (5%). Articulatory irregularities involved interdental, dental, and throat-based realizations.

- The surveyed adolescents rate their articulation abilities relatively high, as indicated by the concentration of most results above the obtained average.

- Among the surveyed adolescents, individuals with higher-than-average self-assessment scores predominate.

- In the study on the goals of social interaction among male and female students, adolescents achieved the highest scores in two aspects: developing social skills and social exposure of oneself in terms of not revealing flaws. This indicates that for students, it is very important to strive for establishing and maintaining better relationships and friendships while presenting themselves in a positive light. Lower scores were obtained in the scale related to social exposure of oneself in terms of showcasing strengths, suggesting that it is important for students to befriend popular individuals, leaders, and have cool friends.

- Class tutors, when assessing the average level of socialization, rate the surveyed adolescents highest in terms of social traits and lowest in terms of personal traits. This means that students are highly evaluated in perspectives such as cooperation, openness to others, adherence to established rules, taking initiative in action, speaking the truth, and respecting peers, older individuals, and others' property. Personal traits include self-confidence, punctuality, conscientiousness, diligence, perseverance in actions, pursuing set goals, caring about one's appearance, and constructively solving difficulties.

- The surveyed adolescents received fairly high ratings for behavior, with the majority of ratings falling into the "very good" category. The two lowest ratings on the possible rating scale were received by a distinct minority.

- Adolescents rated their level of school-related anxiety quite high, which is triggered by factors related to the conduct and organization of classes, such as academic performance, quizzes, questioning, teacher behavior, as well as factors related to the school as an institution, such as breaking school rules, promotion, and parent-teacher meetings. The surveyed adolescents rated their overall attitude toward the school institution and school learning norms significantly lower, and they also showed less

interest in participating in classes, acquiring knowledge, doing homework, or achieving good grades.

- In the group of adolescents with normal articulatory abilities, self-assessment scores were generally higher than in the group of adolescents with reduced articulatory abilities.

- Adolescents with normal articulatory abilities achieved significantly higher scores in the assessment of social interactions than adolescents with reduced articulatory abilities.

- In the socialization assessment, adolescents with normal articulatory abilities were rated higher by class tutors than adolescents with reduced articulatory abilities.

- Adolescents with normal articulatory abilities receive higher behavior ratings than adolescents with reduced articulatory abilities.

- Adolescents with normal articulatory abilities achieved higher scores in the study of motivation for learning and academic achievements than adolescents with reduced articulatory abilities.

- Adolescents with normal articulatory abilities have higher self-assessment scores of articulatory abilities than adolescents with reduced articulatory abilities.

The main goal of the conducted research was to understand the relationship between articulatory abilities and psychosocial functioning of adolescents in the school environment. The research results indicate lower self-assessment scores, social interactions, socialization, and behavior ratings among adolescents with reduced articulatory abilities, underscoring the importance of speech therapy support in schools for the comprehensive and harmonious psychosocial development of adolescents.

Over half of the surveyed adolescents participated in speech therapy sessions during early school years, with 19% still experiencing reduced articulatory abilities. To counteract such phenomena, it is recommended to continue speech therapy in older grades, monitor the effects of therapy, and foster collaboration between speech therapists and teachers to achieve full automatization of the developed speech sounds in spontaneous speech.

The analysis of the results revealed that the majority of adolescents are aware of their articulation problems, which can be positively utilized in the therapeutic process. The obtained data underscore the need to support the emotional, social, and cognitive development of students, as well as to create conditions conducive to the development of social skills and the building of satisfying peer relationships.

The research provided important insights for pedagogical and logopedic practice. The high level of self-esteem among the majority of adolescents is a positive phenomenon, but it is important to support those who may experience low self-esteem. Attention should be paid to the need for emotional support, developing resilience, and strengthening self-worth.

In summary, the research findings unequivocally indicate lower performance in all areas examined by adolescents with lower levels of articulation abilities, confirming the impact of articulation abilities on the psychosocial functioning of adolescents. The consequences of persistent low levels of articulation abilities affect emotional, educational, and social functioning. Supporting adolescents with impaired articulation in the school environment is crucial and should encompass both educational and logopedic aspects, promoting acceptance of diversity and social integration.