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PECULIARITIES OF THE SELECTION OF THE CONTENT OF SCIENCE TEXTBOOKS FOR TEACHING CHILDREN WITH PROFOUND VISUAL IMPAIRMENTS

The peculiarities of selecting the content of science textbooks for children with profound visual impairments, the specifics of introducing inclusive education for children with special educational needs to avoid learning difficulties, adaptation of educational materials for visually impaired children among other children with special educational needs are analyzed in the article. Peculiarities of speech-communicative, cognitive, emotional-volitional and personal development of children with profound visual impairment are considered; Obstacles in mastering the usual learning skills are identified and ways to overcome them by selecting the appropriate material in science textbooks are outlined. It is proposed to further develop the study in the direction of extrapolation of experience in the preparation of textbooks in science in the implementation of the Concept "New Ukrainian School", retransmission of educational achieve-

ments of scientists and practitioners of specialized schools in inclusive education and preparation of relevant educational literature.

Key words: *inclusive education, children with special educational needs, visually impaired students, blind and partially sighted students, textbook, content of education.*

У статті проаналізовано особливості добору змісту навчальних підручниках з природознавства для навчання дітей з глибокими порушеннями зору, специфіку впровадження інклюзивного навчання дітей з особливими освітніми щодо уникнення труднощів у навчанні, адаптації навчальних матеріалів для дітей з порушеннями зору серед інших дітей з особливими освітніми потребами. Розглянуто особливості мовленнєво-комунікативного, когнітивного, емоційно-вольового та особистісного розвитку дітей з глибоким порушенням зору; визначено перешкоди в опануванні звичних навчальних навичок та окреслено шляхи їх подолання шляхом добру відповідного матеріалу у навчальних посібниках з природознавства. Запропоновано подальше розгортання дослідження у напрямку екстраполяції досвіду підготовки підручників з природознавства в умовах реалізації Концепції «Нова українська школа», ретрансляції освітніх здобутки науковців і практиків спеціалізованих шкіл в умовах інклюзивного навчання та підготовки відповідної навчально-методичної літератури.

Ключові слова: *інклюзивне навчання, діти з особливими освітніми потребами, учні з порушенням зору, сліпі і слабозорі учні, підручник, зміст освіти.*

В статье проанализированы особенности отбора содержания учебников по природоведению для обучения детей с глубокими нарушениями зрения, специфику внедрения инклюзивного обучения для детей с особыми образовательными потребностями, адаптации учебных материалов для детей с нарушениями зрения. Рассмотрены особенности речевого коммуникативного, когнитивного, эмоционально-волевого и личностного развития детей с глубоким нарушением зрения; определены препятствия в овладении учебных навыков и намечены пути их преодоления путем подбора соответствующего материала в учебных пособиях по естествознанию. Предложено дальнейшее развертывание исследования в направлении экстраполяции опыта подготовки учебников по естествознанию в условиях реализации

Концепции «Новая украинская школа», ретрансляции образовательных достижений ученых и учителей-практиков специализированных школ в условиях инклюзивного обучения и подготовки соответствующей учебно-методической литературы.

Ключевые слова: инклюзивное обучение, дети с особыми образовательными потребностями, ученики с нарушением зрения, слепые и ученики с глубокими нарушениями зрения, учебник, содержание образования.

Problem statement. The introduction of inclusive education for children with special educational needs raises many questions for teachers and parents. Among them: which establishment to choose, how to help the child develop, how to avoid difficulties, what methods of teaching material to use for a particular child, how to adapt educational materials and educational space, how to socialize the child and avoid conflicts in the children's team, how to establish interaction between teams, teacher's assistant, parents and children and many others. In our opinion, children with visual impairments among other children with special educational needs (SEN) are distinguished from other students with SEN. After all, they are often not perceived as having special needs, because, at first glance, it seems that by wearing such a child "correct" glasses or corrective lenses, putting it closer to the board, we can solve almost all problems - the student will be ready to accept learning material on the same level as other children in the class. On the other hand, the prevailing view of blind children is that it is not possible to teach them at all in the conditions of inclusion due to the lack of visual perception.

Relevance of the article. Civilizational tendencies in the development of modern Ukrainian society, which determine new challenges in the political, socio-economic and educational spheres, implementation of the main provisions of the Laws of Ukraine "On Education", "On Primary Education", the Concept "New Ukrainian School" and the Bologna Declaration as one of the components of the integration of our state into the European and world educational space contributes not only to the creative understanding of the achievements of national pedagogical science and practice of the past, but also the focus on the best world and European models.

Thus, the Concept "New Ukrainian School" declares about changes that occur in primary school and are aimed at reorienting the educational process to the needs of the child, achieving qualitatively new results of his personal and social development. This postulate is also important for children with profound visual impairments, as the main task of special education today is to create an educational system that would be adapted not only to the needs of society, but also to the needs of the blind and partially sighted child.

Analysis of recent researches and published papers. Modern principles of theory and practice of inclusive education of children with SEN in general education establishments are being developed by such Ukrainian scientists as: O. Akimova, Y. Bystrova, O. Gnoevskaya, E. Danilovichyute, I. Demchenko, I. Dmitrieva, V. Zasenkov, O. Kazachiner, O. Kachurovska, V. Kovalenko, A. Kolupaeva, I. Kuzava, Z. Leniv, S. Litovchenko, I. Lutsenko, I. Malyshevskaya, L. Malynovych, O. Martinchuk, S. Mironova, N. Savinova, L. Savchuk, V. Sinyov, E. Sinyova, T. Skrypyuk, N. Sofiy, D. Suprun, M. Suprun, O. Taranchenko, O. Fedorenko, Z. Shevtsiv, A. Shevtsov, M. Sheremet, N. Shmatko, S. Yakovleva, I. Yukhimets, etc.). Some issues related to the training of inclusive schools are reflected in the works of foreign scholars: J. Andrews, T. Loreman, J. Deppeler, J. Lupart, D. Harvey, D. Sobsey, L. Stoll, U. Sharma, A. Greenwood.

The issues of education of blind and partially sighted children are raised in the works of L. Vavina, I. Hudyma, V. Yermakov, T. Kostenko, S. Pokutneva, E. Sinyova, G. Yakunin and others. However, a comprehensive analysis of the issue raised in the title of the article is currently missing.

The purpose of the article - to identify and characterize the features of the selection of content in science textbooks for teaching children with profound visual impairments.

Presentation of the main material of the study. It is known that the education of blind and partially sighted children is based on the textbooks of a mass school. For the blind, these textbooks are printed in embossed dots, for the visually impaired in a larger font and specially transformed images that are available for visual perception. Today, for children with profound visual impairments in the first grades in the section "Science" textbooks "I explore the world" are offered. We analyze the textbook T. Gilberg, S. Tarnavska, O. Hnatyuk, N. Pavych in order to identify compliance with the educational opportunities of children with profound visual impairments [13].

It is worth noting that all sections of the textbook "I explore the world" are accompanied by illustrative material. The main tasks for students are formulated as follows: "tell about...", "compose a story based on pictures", "compose a story according to the plan (plan is proposed)..."; "How are you different from each other, what do you have in common?" On the page 32 in the textbook the material is provided with a list of devices that people use to improve vision, the question is asked: "what signs of objects can children perceive through sight?" [13, p. 32]. As you can see, all these issues are designed for a certain development and life experience of children.

We will analyze in more detail the development and life experience of children with profound visual impairments, and whether first-graders are ready to perform such tasks. It is known that during visual impairment there is a

gradual coagulation and weakening of the functions of visual perception in visually impaired and partially sighted children, or complete cessation of perception in persons with complete loss of visual sensations [1; 2]. Visually impaired children have difficulty learning illustrative material and objects. In particular, the following violations of the perception of drawings were revealed: slowness of review, inaccuracy, omission of image details [4; 5; 6; 7; 8]. Due to the vague perception of individual elements and also inaccuracies of representations, erroneous versions of what is depicted in the figure are often formed. Perception of visually impaired drawing makes it difficult to understand its content, disrupts the perception of spatial relationships between the objects depicted on it. The most significant impairment of visual perception is observed at a visual acuity of 0.2 and below. Children with profound visual impairments do not recognize familiar objects, poorly distinguish their sensory features. Typhlopedagogues warn that illustrative material should be as close as possible to reality, have a clear form. In addition, illustrations should not be oversaturated with visual materials.

In the explanatory note of the program from this course it is noted that the educational activity of blind and partially sighted students is characterized by a low level of educational opportunities: imperfection mastering the means of cognitive activity (nature of actions with objects and type of perception), thinking operations (analysis, synthesis, comparison) [7; 8]. Students with profound visual impairments find it difficult to perceive objects at a distance and moving, as well as large and small in size. Therefore, much in the surrounding reality remains out of sight and attention of children, which leads to a low level of development of their life experience and complications of verbalization, difficulties in constructing a descriptive text, children find it difficult to use the teacher's plan, and they do not have skills. All this has a negative effect on their activity, because children do not have a focus on knowledge of objects and ideas of the surrounding reality. Observation is not yet formed in the seventh year of life, which prevents you from noticing the characteristics of objects and environmental phenomena. Decreased activity leads to limited independence, supplemented by excessive adult care. All this leads to the fact that children get used to constant help, become passive.

Here are some examples that were implemented during the preparation for writing S. Pokutneva textbooks and manuals "The world around you". During the diagnosis of the level of educational opportunities, blind and partially sighted students of the first and fourth grades were asked to tell, first of all, about a) a crow and a rooster; b) how similar, how different: wolf and dog; winter and summer; secondly, in the presence of visual material: handfals with the same geometric shapes.

Results a): Tanya L. / 1st grade / is silent, there is no independent answer. Answers to the question: what crow? - small, gray. How does she scream? - "moo-

moo". How does a rooster crow? - "cock-a-doodle-doo". Kostya Ch. / 1st grade /: "The crow is cunning, it steals chicks. The rooster is brave." Daria N. / 4th grade /: "She stays here in winter, they get their own food. Shout "car". "I go to bed in the evening. He gets up early, wakes people up for work at 6 o'clock. Shouts the corn." Luda P. / 4th grade /: "Black (crow), funny. Big paws, big mouth. Sometimes (rooster) is white or red.

As we can see, children have only a general concept of birds, but it is very poor.

Results b): Both blind and partially sighted 1st grade students could not find what is different and what is similar to a wolf and a dog. Pupils of the 4th grade answered: Daria N. - excellent: "A wolf has a long tail, and dogs have such a twisted tail. The dog's ears are up, and the wolf's ears are hanging." The same: "The wolf howls, and the dog barks." Luda P. is excellent: "A dog goes hunting, the house is guarded. And the wolf eats everything, attacks people, eats hares. Wolves have a herd." The same: "A dog is big and small. The wolf has big teeth and paws."

As you can see, blind and partially sighted first-graders refused to complete the task, which indicates that children do not yet have sufficient knowledge about the objects that are offered to them. Therefore, they cannot make a comparison by representation, which requires the superimposition of one image on another. Fourth-graders, blind and partially sighted, have some knowledge of these objects, which is due to learning experience, but could not cope with the task: they found only a few elementary signs of difference. Children's speech is not formed enough, so their statements are too imperfect, but they have some differences: blind fourth-graders in their speech use only a few insignificant sensory features of difference, which are erroneous in content, due to the quality of their ideas about these animals. Visually impaired 4th grade students in statements about animals reflect only a few in significant knowledge about them. Moreover, this knowledge is presented side by side and is not compared at all: first knowledge about one animal, and then - about another.

None of the blind and partially sighted students of both the first and fourth grades could find the same in summer and winter. (That is, both are seasons). First graders, both blind and partially sighted, could not find an excellent in this task. Daria N. / 4th grade /: "It's cold in winter and warm in summer. In winter they go in fur coats, and in summer - in shoes, sandals, without a jacket, and in summer the sun warms ". Luda P. / 4th grade /: "In summer, various vegetables, fruits and heat grow. You can swim. There are berries, cherries, apricots, plums, green and yellow leaves. And in winter it is cold, children go sledding, skiing, skating."

Blind and partially sighted first-graders did not cope with the task at all. At this level of development, they probably do not yet have sufficient knowledge of natural phenomena to make a mental comparison. 4th graders also failed the task.

None of these children could find the same signs of natural phenomena by ideas, due to the quality of their knowledge. Students found excellent, but in the blind it was much better than in the visually impaired. The statements of blind students consist of signs of a sensory nature (characteristics of the weather) and insignificant personal experience (characteristics of the use of clothing and footwear by season) reflect the truth. Moreover, this knowledge has one basis and has the necessary form of opposition. However, in general, the statement is imperfect: it reflects only a few features that are presented chaotically. The presentation of individual features indicates that blind students were not able to properly analyze the phenomena of nature, and this did not allow them to abstract and generalize, that is, to make a better statement.

Visually impaired 4th grade students were less successful despite the greater content. Statements consist of individual knowledge of nature, individual signs of sensory nature, broader practical personal experience - all this is true, but presented chaotically and side by side and are not compared with each other, which indicates that students have not mastered the essence of comparative operation.

The results of the task in the presence of visual material. Tanya L. / 1st grade / - "Unequal angles: triangle, quadrilateral (points to squares), circle, quadrilateral (points to rhombuses)". Kostya Ch. / 1st grade / - The circle is different (silent) circle, quadrilateral, triangle, rectangle (the student points to the figures in piles). Daria N. / 4th grade / - "In one - triangles, in the other - circles, in the other - squares, rectangles, rhombuses, octagon." Luda P. / 4th grade / - "Circle, square, rhombus, triangle, octagon, rectangle". As we can see, all statements are imperfect. Students only list objects without comparing them. This is due to students' lack of understanding of the characteristics of objects as necessary (forms) and constant qualities of the latter.

Psychologists note that the inability of students to describe, explain, interpret knowledge about the objects of the surrounding reality leads to the idea of insufficient understanding of their knowledge. Phenomena, objects are considered understandable if a person finds the correct concepts to describe them [12; 7].

We classified children with the above data as low level of development, they accounted for 29.8% of the subjects. Normal-sighted children of this level were not detected. But children with profound visual impairments did not enter a high level of development, 25% were found to be sighted. Thus, there is a significant difference in the degree of development of students with profound visual impairments compared to their normally sighted peers.

The above raises a number of questions about the possibility of teaching visually impaired children in modern textbooks. S. Pokutneva's research showed that in working with illustrative material, teachers help children to understand the situation depicted by their questions, expanding their experience. In addition,

teachers independently select supporting illustrative material and place it on the board for group work of students and consolidation of educational material.

The material of the textbooks “I explore the world”, which is about special devices that improve vision, is not new for visually impaired children: they use them from preschool years. But these children, as well as the blind, typhlopedagogues teach necessarily when acquainted with objects and objects of the surrounding reality and use a touch analyzer to get more accurate information about them. Therefore, such a question as “what signs of objects can children perceive with the help of sight?” for children with profound visual impairments is not entirely correct.

In conclusion, it is difficult for teachers to work with children with profound visual impairments with textbooks that do not take into account the peculiarities of the development of these children. And junior high students can not reach the required level of development, working on the textbooks of mainstream schools. It should be noted that the didactics of special education has worked out its approaches to the peculiarities of education and development of such children. These approaches are based on L. Vygotsky's theory of compensation for the consequences of visual insufficiency of children with profound visual impairments [1]. According to V. Davydov and D. Elkonin, the school should teach children to think theoretically [2; 3]. The formation of theoretical knowledge requires a new approach to the educational activities of students, which is the basis of their mental development and consists of such basic lines as observation, thinking and practical action. So, first of all, children with profound visual impairments should first be given knowledge of the surrounding reality, and then accustomed to ways of knowing and reflecting them. Secondly, children should be taught to work with the textbook, starting with acquaintance with its components: content, text, questions to the text. Third: to teach students to select their knowledge from other literary sources as early as possible. It is such consistent work that will lead children to the necessary development. Therefore, in the explanatory note of the curriculum in science [9; 10; 11] we have defined the following as a specific task: mastering by students with profound visual impairments a certain experience in cognition and reflection of educational material.

It should be noted that S. Pokutneva created special textbooks for visually impaired children of grades 1-3 in 2 parts of the course “Science” which were called “The world around you”. Textbooks for 3rd grade (also in 2 parts) are called “Science”. The first part of the textbooks is devoted to lessons on compensatory development (formerly called correctional). The purpose of these lessons is to clarify and expand the “familiar” knowledge of visually impaired students about the surrounding reality. It is this knowledge of the material is designed to help students reproduce their knowledge in the independent compilation of descriptive texts. The

emphasis on students' speech contributes to the specifics of the compensatory factor in the development of children with profound visual impairments. In this part there are 5 themes: school, clothes, shoes, utensils, furniture. The first topic is propaedeutic and is designed for 6 hours. The purpose of this stage is to acquaint students with the basic characteristics of the concept as a logical category (the content of the concept - essential features; its volume - a set of objects covered by the concept; essential connections and relationships of this concept with other concepts of the system). We did not find similar textbooks with such training. Therefore, this topic begins with specific and detailed lesson outlines for practical teacher assistance. It is worth noting that on the cover of this textbook are pictures: a suit for a first-grader, girls' clothes, dishes, shoes, headdress. Addressing the students, the teacher, as always, asks to name the object that is on the right, left, top, middle and. etc. When students recognize all the pictures, the teacher will say that this textbook will help us remember these objects and learn to write stories about them. But the artist made a mistake when drawing these drawings. Then we will find this error. However, not only this cover informs about the content of this textbook. As always, at the end of any book is its content. The children open the last page and start comparing the themes with the pictures, and then find a mistake - this is the headdress. Thus begins the acquaintance of students with the new textbook and its necessary part - the content. It is worth noting that the lessons on compensatory development will be more playful with communication according to a special scheme, the use of practical research of objects of the surrounding reality with an emphasis on the development of oral coherent speech of students. The playful nature of the lessons will help students master the theoretical content with the formation of concepts, so the material from the lessons of compensatory development will be ahead of the material from the lessons of the course "Science". After students get acquainted with the first topic of the first part of the textbook, you can proceed to work with the textbook of the second part [9].

The second part of the textbook on its subject relates to a course in science. The purpose of this course is for students to learn new knowledge about the surrounding reality, also on the basis of such a logical category as the concept, the features of which students are acquainted in detail while working with the first topic of the textbook of the first part. The lessons of the second part are designed to develop the ability to independently acquire new knowledge by reading texts, using diagrams, performing practical exercises, and if necessary - the use of practical research of objects of the surrounding reality. Children will meet the theoretical material on the formation of concepts in these lessons for the second time, but here it will be formulated in the content of the text and supported by the presence of the scheme. In the text, the student reads the rules, which he previously came to his own conclusions in game situations, working with the first part of the text-

book. It is important that the student reads information already familiar not mechanically, but with a full understanding of what is read. In the future, students can gradually self-realize in learning activities: evaluating their activities and their results [10].

In the second part of the textbook more complex topics from general concepts: man, society, nature. It should be noted that the textbooks for grades 1-2 have been tested, the results are very optimistic: the children loved the lessons of the course "Science", became more active, learned to compose descriptive and narrative texts, happy to evaluate the results of their classmates. All this suggests that blind and partially sighted students need textbooks that take into account their features.

Conclusions and prospects for further development of research in the presented direction we see in the extrapolation of the experience of preparing textbooks in science in terms of implementation of the Concept "New Ukrainian School". We state that it is quite possible to retransmit the educational achievements of scientists and practitioners of specialized schools in the conditions of inclusive education and preparation of relevant educational and methodical literature.

References:

1. Vygotsky L.S. Fundamentals of defectology. Ed. T.A.Vlasova. M.: Pedagogy. T. 5. 1983. 369 p.
2. Davydov V.V. Features of realization of the substantial generalization in training. Psychological textbook. Edited by A.V.Petrovskiy. 2nd ed., reworked. and ext. M.: Enlightenment, 1987. 447 p.
3. Davydov V.V. Theory of developmental learning. M.: INTOR, 1996. 544 p.
4. Yermakov V.P., Yakunin G.A., Development, training and education of children with visual impairments. M.: Enlightenment, 1990. 223 p.
5. Kostenko T.M., Gudym I.M. Education of children with visual impairments: a textbook. Kharkiv: Ranok Publishing House, 2019. 184 p
6. Pokutneva S.O. Individual approach in teaching blind and partially sighted students in the preparatory period. Kiev, 1993. 72 p.
7. Pokutneva S.O. Scientific and theoretical principles of forming the content of education in the field of education «Man and the World» in schools for children with profound visual impairments: a monograph. K., 2008. 204 p.
8. Pokutneva S.O. Compensation as the main form of development of children with profound visual impairments. A special child. - K., 2014. pp. 22-30.
9. Pokutneva S.O. The world around you: manual for visually impaired students of 1st grade: at 2 o'clock K.: Pedagogical thought, 2009. Part 1: Preparatory (for lessons on compensatory development). 2009. 95 p.

10. Pokutneva S.O. The world around you: manual for visually impaired students of 1st grade: at 2 p.m. K.: Pedagogical thought, 2009 - 2010. H-2 For lessons from the course «Me and Ukraine». 2010. 104 p.
11. Pokutneva S.O. The world around you: textbook for the 2nd class for elementary school visually impaired students: in 2 parts. K.: Kyiv: Pedahohichna dumka. P-2 Basic: (for lessons from the course «Science»). 2012. 90 p.
12. Sinyova Ye.P. Features of development and upbringing of the person at deep visual disturbances: monograph. K.: Published by NPU named after MP Dragomanova, 2012. 442 p.
13. I explore the world: manual integral course for the 1st grade of secondary educational establishments: (in 2 parts): p. 1 / Hilberg T. and others. Kyiv: Genesis, 2018. 112 p.

Transliteration of References:

1. Vyigotskiy L.S. Osnovy defektologii. Pod. red. T. A. Vlasovoy. M.: Pedagogika. T. 5. 1983. 369 s.
2. Davyidov V.V. Osobennosti realizatsii soderzhatelnogo obobscheniya v obuchenii. Hrestomatiya po psihologii. Pod red. A.V.Petrovskogo. 2-e izd., pererab. i dop. M.: Prosveschenie, 1987. 447 s.
3. Davyidov V.V. Teoriya razvivayushchego obucheniya. M.: INTOR, 1996. 544 s.
4. Ermakov V.P., Yakunin G.A., Razvitie, obuchenie i vospitanie detey s narusheniyami zreniya. M.: Prosveschenie, 1990. 223 s.
5. Kostenko T. M., Hudym I.M. Navchannia ditei iz porushenniamy zoru : navchalno-metodychniy posibnyk. Kharkiv: Vyd-vo «Ranok», 2019. 184 s.
6. Pokutneva S.O. Individualnyi podhod v obuchenii slepyh i slabovidyashchih uchashchisya v podgotovitelnyy period. Kiev, 1993. 72 s.
7. Pokutnieva S.O. Naukovo-teoretychni zasady formuvannia zmistu navchannia v osvittii haluzi «Liudyna i svit» u shkolakh dlia ditei z hlybokymy porushenniamy zoru: monohrafiia. K., 2008. 204 s.
8. Pokutnieva S.O. Kompensatsiia yak osnovna forma rozvytku ditei z hlybokymy porushenniamy zoru. Osoblyva dytna. K, 2014. S. 22-30.
9. Pokutnieva S.O. Svit navkolo tebe: pidruch. dlia slabozorykh uchniv 1 klasu: u 2 ch. K.: Pedahohichna dumka, 2009. Ch. 1: Pidhotovcha (dlia urokiv z kompensatornoho rozvytku). 2009. 95 s.
10. Pokutnieva S.O. Svit navkolo tebe: pidruch. dlia slabozorykh uchniv 1 klasu : u 2 ch. K.: Pedahohichna dumka, 2009 – 2010. Ch. 2 : Dlia urokiv z kursu «Ia i Ukraina». 2010. 104 s.
11. Pokutnieva S.O. Svit navkolo tebe: navch. posib. dlia 2-ho kl. pochat. shk. slabozorykh uchniv: u 2 ch. K.: Pedahohichna dumka. Ch. 2: Osnovna: (dlia urokiv z kursu «Pryrodoznavstvo»). 2012. 90 s.

12. Synova Ye.P. Osoblyvosti rozvytku i vykhovannia osobystosti pry hlybokykh porushenniakh zoru : monohrafiia. K. : Vyd-vo NPU imeni M.P. Drahomanova, 2012. 442 s.
13. Ya doslidzhuui svit: pidruch. intebr. kursu dlia 1-ho kl. zakl. zah. sered. osvity: (u 2-kh ch.): ch. 1 / Hilberh T. ta in. Kyiv: Heneza, 2018. 112 s.



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**PECULIARITIES OF THE SELECTION OF THE CONTENT OF SCIENCE TEXTBOOKS
FOR TEACHING CHILDREN WITH PROFOUND VISUAL IMPAIRMENTS**