

THE LEARNING ABILITIES OF THE YOUNG CHILD

- *Arguments in favour of Day-care, Pre-school Education and Parent Education -*

AIDS TO PROGRAMMING UNICEF ASSISTANCE TO
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In this paper, Mrs. Muriel Dwyer makes a strong case for increased attention to the first six years of a child's life and, with copious references to well-known authorities, advocates day-care and pre-school education with appropriate facilities, and parent education, to ensure the full development of the child.

I. WASTED RICHES

The heading of this paper is "The Learning Abilities of the Young Child". I should like to rename it "Wasted Riches", as only now are most people beginning to recognize the immense potentialities of infancy and early childhood.

It has been widely shown by research over the past forty years that young children are gifted with a psychic nature peculiar to them, and this, inevitably, points a new path for the educator, whoever he may be. It is something out of the ordinary; something not hitherto recognized, yet something which vitally concerns mankind.

Just as men, in the past, have trodden the earth and tilled its surface without thought for the immense wealth hidden in its depth, so man of our day makes progress, in civilized life, hardly noticing the treasures that lie in the psychic world of infancy.

Dr. Alexis Carrel, in his famous book L'Homme cet Inconnu, wrote in 1935 "The period of infancy is undoubtedly the richest. It should be utilised by education in every possible and conceivable way. The waste of this period can never be compensated. Instead of ignoring the early years, it is our duty to cultivate them with the utmost care".

The greatness of the human personality begins at the hour of birth or before, and therefore it becomes plain that education must begin at birth, as by the age of three the child has already laid down the foundations of his personality as a human being. So great are the conquests he has made that

At birth the baby has hardly any co-ordinated movement, no language, customs, tastes, religion. He is totally helpless and will surely suffer and possibly die unless given every help; but by the age of three we can expect to find that the child has the following abilities. He should at least:

- Be capable of speaking clearly and of being able to express his needs and re-tell experiences in at least one language.
- Be capable of walking and also running, climbing with assurance, carrying things safely.
- Be able to feed and toilet alone, and make a good attempt at dressing and undressing.
- Have clear ideas of the behaviour that is acceptable at home and in the immediate environment.
- Have a knowledge of the customs, music, simple poems and stories of his society, and have explored his immediate surroundings.

If one ponders or meditates on the state of helplessness of this life at birth and the achievements in three years one cannot help but be impressed, indeed totally overawed, when one realizes that at very best this is only a fraction of the potential of man.

This ability to make fantastic progress continues until 6 years of age unless it is hindered, but here we come up against adult prejudice.

It is however time to be practical; how can we help? what is required? In order to answer, we must first clear a few points.

(a) Man has a double embryonic life. Let us turn to Dr. Maria Montessori for an explanation of this: "At birth, man is relatively immature compared with other primates. This is a statement of fact. Consequently, part of the process of growth and development that these animals complete in the embryonic stage, man accomplishes in the post-natal state, when he is exposed to influences from the outside world. This is what Montessori means when she refers to the double embryonic process and it is related to the outer environment. It is, therefore, of a psychological order. The post-natal stage is a formative period of intense activity during which the child must create in himself the basic structure of his personality." The human genetic code provides that the vast potential of the human being is present at birth, but from then on what the environment (including the adults who form part of the environment) provides seems to be increasingly important. Thus, the study of the development of the brain of man is all-important.

(b) Professor W. Ritchie Russel and Dr. Montanaro tell us that "the healthy human infant at birth is already provided with his full allocation of nerve cells. At birth the brain weighs approximately 335 gr. or about 25% of the weight of the adult brain; yet by nine months it is already 750 gr. or more than half the weight of the adult's brain". It is also interesting to see the rate of increase: 0-3 months, 180 gr.; 3-6 months, 145 gr.; 6-9 months, 90 gr. By five years it is 90% of the adult's brain weight.

"This astonishing process is not due to any increase in the number of brain cells, but is due to the growth of patterns and interconnections on which all possibilities for the future depend.

"The brain and all the nervous system are strongly privileged during embryo and foetal development; they are the only systems in which all the cells are present at birth, but the working speed and complexity of these cells depend on the child's initial experiences.

*
* *"The anatomy and physiology of the nervous system clearly*
* *points out that education (in the sense we shall outline)*
* *realises an instrument whose precision is directly pro-*
* *portioned to early progressive training. Thus intelligence,*
* *this individual and free gift, will have available, to mani-*
* *fest itself, a device for which the developmental environ-*
* *ment is all-responsible. Whilst most adults tend to think*
* *that new-born and unweaned babies only need hygiene and good*
* *food, the new human being, psychically hungry, is wasting its*
* *most valuable time. Only appropriate stimulation can in-*
* *crease the volume and weight of the cerebral cortex and adapt*
* *each individual cell to its proper function".*
*

(c) "Education" in the sense we mean, is a natural process which develops spontaneously in the human being. It is acquired by virtue of experiences in which the child acts on his environment. The adult's task is to so prepare the environment, be it home or school, so as to provide the child with series of motives of activity relative to the different areas of life, including culture, that he needs to explore and incarnate if he is to achieve full development and adaptation to his time, place and group.

*
* *It has been said that:*
* *"Individual activity is the one factor that stimulates and*
* *produces development and that this is not more true of the*
* *little ones of pre-school age than it is for the primary,*
* *middle and upper school children".*
*

(d) Learning follows its own development and rules. Every step is conditioned by what happened (or did not) beforehand. Therefore education can only be efficient when the specific rhythm of this evolutionary plan is respected. Thus an adequate development during the first years of life is linked to the adult's knowledge of and attitude to the child's needs.

(e) Techniques alone, although they are an essential help, are not sufficient because human beings are so constructed that they can receive positive stimulus for development from the outside world only through the channel of love".

It is the only true way of communication capable of penetration; under various forms, it accompanies us from conception to death. I say from conception because already in the mother's womb the child, when loved, is in a different biological environment. Very recent researches have shown that women happy with their pregnancies produce a special molecule, endorphine, capable amongst other things of contributing to the development of the nervous system. Mother's milk, moreover, is the only one containing a special protein, cystine, which is of enormous help in developing the brain. So the importance of breast-feeding, not only from the nutritional and hygienic point of view but also from the developmental standpoint and as an outward sign of love, is once again underlined. It is important for children that mothers be happy with and during their pregnancies.

Also, the moment of birth and the handling of the child at birth and immediately afterwards is vital, and I would ask you all to look at the work of Dr. Le Boyer.

(f) In the early years of life, man has a special type of mind that allows the impressions he receives not merely to enter his mind but to form it - they become part of him.

This allows the child to form himself on the society and environment in which he finds himself. This type of mind has been called "the absorbent mind". This special mind allows the child to build into himself the customs, languages and ways of life of the people who surround him.

(g) Man throughout his life has certain "needs" in order to continue to live and develop, but let us take a very brief look at a few of the needs of the child from birth to six years.

 *
 * We have already spoken of love, and with it comes
 * security, sufficient and correct food, and necessary
 * clothing and shelter; but there are others, just as
 * important. We must confine ourselves to a few words
 * on a limited number of the most obvious, such as move-
 * ment, independence, communication, exploration, curiosity,
 * order and exactness.
 *

III. NEEDS OF THE CHILD FROM BIRTH TO SIX YEARS

Movement: Movement is the conclusion and purpose of the nervous system; without it there can be no individual. It is fundamental that the actions of man should be connected at the centre - the brain, mind and movement being two parts of a single cycle.

*
* *It is essential for education that mental develop-* *
* *ment be connected with movement, and dependent on it,* *
* *because movement has great importance in mental de-* *
* *velopment itself, provided that the action which occurs* *
* *is connected with the mental activity going on.* *
*

Observations made on children the world over confirm that the child uses his movements to extend his understanding, for movement helps the development of the mind and this finds renewed expression in further movement and activity.

Independence or Self-reliance: If we observe the natural development of life with sufficient care we see that it can be defined as the gaining of successive levels of independence, and each such gain is a step forward on the road to independence. For example:

- at 2 months the child can control his head movements and follow something of interest, observing it attentively and at length.
- at 6 months the child can sit up and observe the world in a psychologically very important position of "confrontation".
- at 12 months the child walks and can use this ability for furthering his discoveries of the world, etc.

Then we have the coming of the ability to digest solid food, and the mastery of language, and so it continues. What is important for us to keep in mind is that as soon as an organ or ability has evolved, it must immediately begin to act in its proper sphere. If such experience is not obtained, the organ fails to develop normally, for at first it is incomplete.

*
* *It follows, then, that the child can only develop fully* *
* *by means of experience on his environment, by being al-* *
* *lowed and encouraged to exercise his new-found abilities* *
* *until he has perfected them and used them to further his* *
* *development, as well as building his self-confidence.* *
* *If he is denied these possibilities his development is* *
* *hampered and, in severe cases, arrested.* *
*

Communication: There are many forms of communication, all of which are important, but one unique to man is articulate speech which makes possible abstract concepts, the passing on of ideas, etc. It is significant that the riches of a language are directly connected to the width and range of experience of the people who speak it. The young child has a special sensitivity to language and with his special type of mind is capable not only of absorbing one but several languages if the correct opportunity occurs within his environment.

*
* *If we wish to help this side of his development, we* *
* *must see that not only is he provided with a wide range* *
* *of experiences at a very early age but he must also be* *
* *given opportunities to acquire the necessary vocabulary* *
* *with which to express these experiences.* *
*

Exploration and Curiosity: All human beings are naturally endowed with a high degree of curiosity, because when they are born they are indeed strangers in the world. In order to become adapted and orientated they must explore all areas of the environment and society.

*
* *So again, it is all-important that the child's* *
* *natural curiosity be encouraged, his questions answered,* *
* *and that, from birth, he be given every possible oppor-* *
* *tunity to explore in all fields, being limited only by* *
* *safety and his own abilities.* *
*

Order: Order is necessary for a harmonious life; indeed, without it there would be chaos and eventually life would be impossible. Another point worth noting is that the human being requires a special degree of order in any area of his life, environment or learning, to which he is new and thus still at the stage of exploring.

If one translates this to the young baby or child who is new to everything and everywhere, and has all to explore and learn, it is not surprising to find that order, even exactness, are of the utmost importance to him and his development. If he is forced to live in a disorderly environment his exploration is hampered and thus his development can be retarded.

*
* *All we have said shows that the education of parents is* *
* *even more important than the provision of nursery education* *
* *because by the age of three the child has already become a* *
* *man of his time, place and group - in other words, has* *
* *already laid the foundations on which the rest of his life* *
* *will be built.* *
*

IV. PARENT EDUCATION

This education of parents need not be as difficult as it sounds. In many developing countries there are now maternal and child welfare units doing fantastic work even in the most remote up-country areas. If this foundation were broadened to include the psychic as well as the physical needs of the child, no new organization would be necessary. In more developed areas the media, particularly radio and television, could and should be used in this important work.

Neither is expensive equipment necessary. The adults themselves, if well instructed and convinced, the natural environment, particularly the home, however simple, is all that is required. It is attitudes and understanding that have to change and be broadened. The most expensive equipment in the world will not help if the attitude of the adults is unenlightened.

In this period 0 - 3 years it has to be stressed to parents that good nutrition is not only important for the physical well-being of their children but also for their intellectual development. They must also have explained to them the importance of allowing the baby to be active, to explore, to do for himself whatever he is capable of, such as washing, feeding, and doing the kind of activities that he sees around the house. It is important to answer his questions and allow him to speak, tell him stories, introduce him to different kinds of flowers, shapes, colours, music, etc., indeed, help him to become acquainted with everything in his home and immediate environment.

During the period of 3 - 6 years the child has the potential to widen, deepen and consolidate what he has gained in the first three years. So what he requires is help to do just that.

At the time or in places where Man was only expected to adapt to the simple environment and society, the child was able to gain all he needed by running freely in the village, watching and participating in the life and work of the people who surrounded him.

However, for most people in the world this isolated existence no longer pertains. With modern means of communication it is now necessary for the village child also to adapt to the larger world - no one can tell where a child born in a remote village will, in fact, lead out his life.

So the children need to adapt not only to the here and now, the simple life, but also to the complicated life of the world in all its aspects. To do this he must be able to explore, get to know and build into himself the knowledge and abilities necessary for a full life in a wider context. For this he needs extra help, and thus we come to the day-care centres or pre-schools.

V. DAY-CARE AND PRE-SCHOOL EDUCATION

These little ones have the potential to achieve great things, but this is only possible if their fundamental needs can find fulfilment.

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* *If these little ones are crowded into huts or buildings,* *
* *denied the possibility to explore, be active, communicate,* *
* *are immobilized and tyrannized by adults using sticks and* *
* *other weapons, their health and development can only be* *
* *damaged and retarded, and we must remember that this dam-* *
* *age will be permanent.* *
*

We all know that this is happening - even being funded by governments and international organizations. In the name of women's rights to work and economic progress, many children are being forced to spend long hours with insufficiently trained people, in deplorable conditions, and we should protest loudly as no economic or other reason can be used to justify destroying even partially the potential of the next generation.

*
* *If the provision of good day-care facilities, which really* *
* *means properly-trained adults with an efficient supervisory* *
* *service to back them, is impossible, then in the villages* *
* *at least it would be far more beneficial to leave the child-* *
* *ren to run free, to go to the fields with their parents and* *
* *if possible, just call them together for half an hour for* *
* *milk or other food, if it is available. At least their* *
* *spirits would not be damaged and they could continue to ex-* *
* *plore and be active in their natural environment.* *
*

If we are going to have day-care or pre-schools, the prerequisite must be that we have adults

- who love and respect children,
- who know the basic physical and psychological needs of the children,
- who know how to provide purposeful means of activity from locally available materials,
- who have themselves explored the environment with all its shapes, sounds, textures, customs, etc., and
- who know how to give the children the key for their own exploration.

It is possible. I have seen it done in the poorest areas, in both city and countryside.

Expensive buildings, furniture, toys, are not necessary, but properly trained assistants and supervisors are. When this is done, where the children are provided with the means to fulfil their needs, then their progress is fantastic and our problem is to try to upgrade the adults so that they are not the means of retarding the children.

It is necessary here to say a few words about reading, writing and arithmetic. These now form part of life and they are necessary, even fundamental, for a full exploration of the environment which also includes the man-made environment and his achievements. The 3 - 6-year-olds are not only capable of acquiring these skills, but also love doing them.

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*   Here, however, we must add a stern note of warning.
*   Children of this age are not ready for formal education,
*   formal teaching, and if it is imposed on them with its
*   immobility etc. it is harmful to their total develop-
*   ment. However, there is a world of difference between
*   formal teaching and the knowledge and abilities that can
*   be acquired through purposeful activities and exploration
*   in a specially prepared environment. Children of this
*   age can and should be allowed, in freedom, to explore
*   these and other achievements of Man.
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Six-year-olds have already shown us that they are capable of achieving the following:

- Be almost completely physically independent (toilet, feeding, dressing, washing, bathing, nose, etc.).
- Be capable of carrying out daily routines.
- Be able to plan their own activities for a day within their capabilities and limits, safety and fitting in with family or school routine being taken into consideration.
- Be able to conduct themselves with dignity in society and to be able to take the initiative.
- Be able to obey a reasonable request with reasonable alacrity.
- Have a well-developed sense of responsibility.
- Be able to make a reasonable attempt at dealing with a personal problem and situation.
- Be able to express themselves clearly in speech. They also should have minds that are alive, interested and full of curiosity and they should have developed the necessary abilities to expand their fields of exploration.

In other words, they are capable of having enough self-confidence and the necessary abilities to go out and explore the wider world, and are able to:

- Read with understanding and with fair fluency.
- Know a fount of stories and poems.
- Have acquired a sound understanding of the four rules of arithmetic even into millions, and of other basic mathematical concepts.

- Be able to write a story with reasonable spelling.
- Write a good hand.
- Have a basic knowledge of the natural life around them.
- Have a basic knowledge of geography, particularly local geography.
- Have a basic knowledge of science, music, art, and be able to use a simple library and suitable reference books.

May I once again underline that these are achievements made in freedom through activity and exploration, not through formal teaching.

If this first period of post-natal life were used to its full; if the potentialities of the children were allowed to find a greater degree of fruition, not only would we have more balanced and harmonious adults but also the literacy problem could be solved with more ease.

 * If the children were permitted to become literate before six, when nature has given them a special sensitivity to language, then primary education could move on to fulfil the true needs of the 6 - 12-year-olds which include learning, how to find knowledge and the keys for the exploration of the unseen. One could even dream that in the cities at least, schools as we know them could disappear and be replaced by information centres, libraries, technical centres and exploratoriums. A revolution in education is essential if we are to prepare for the 21st century, and I feel that the Third World could well lead the way.

VI. CONCLUSION

To close, permit me to quote from Dr. Maria Montessori:
 "A new figure has arisen to greet our eyes. Man, whose true nature is shown in his capacity for free development, whose greatness becomes visible directly mental oppression ceases to bear upon him, to limit his inner work and weigh down his spirit.

"Therefore I hold that any reform of education must be based on the personality of man.

 * Man himself must become the centre of education and we must never forget that man does not develop only at the university, but begins his mental growth at birth and pursues it with the greatest intensity during the first three to six years of his life.

To this period, more than to any other, it is imperative to give active care. If we follow these rules, the child - instead of being a burden - shows himself to us as the greatest and most consoling of nature's wonders! We find ourselves confronted by a being no longer to be thought of as helpless, like a receptive void waiting to be filled with our wisdom; but one whose dignity increases in the measure to which we see in him the builder of our own minds, one guided by his inward teacher, who labours indefatigably in joy and happiness, following a precise time-table, at the work of constructing that greatest marvel of the universe, the human being. We adults can only help the work going on, as servants wait upon a master. We then become witnesses to the development of the human soul; the emergence of the New Man, who will no longer be the victim of events but, thanks to his clarity of vision, will become able to direct and to mould the future of mankind".

ACKNOWLEDGMENTS AND FURTHER READING

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