

# Avicenna on the Aims of Education, Stages of Education and Methods of Teaching

## AVICENNA ON EDUCATION: PART II

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### THE AIMS OF EDUCATION



Many countries around the world have honoured Avicenna, the great Muslim scientist, by depicting his vignette on their postage stamps. The symbolic value of Avicenna has been often chosen to commemorate scientific occasions, achievements and anniversaries.

Avicenna sees the aims of education as the overall growth of the individual: physical, mental and moral; followed by preparation of this individual to live in society through a chosen trade according to his aptitudes. So Avicennian education does not neglect physical development and everything implied by it: physical exercise, food and drink, sleep and cleanliness. It does not aim exclusively at intellectual development and the amassing of knowledge; likewise Avicenna does not devote his attention to the moral aspect alone, but aims at the formation of a personality complete in body, mind and character. He does not restrict the task of education to creating the complete citizen, but rather sees that education must also prepare him for a profession whereby he can contribute to the social structure, because society, in Avicenna's view, is built entirely on 'co-operation', on the specialization of each individual in a craft or profession and on the mutual exchange of services between its individuals.

Although Avicenna was a philosopher and thus belonged to a group of people who believed that Greek thought was that of an educated élite such that philosophers had an undisputed superiority over all others, yet for him the aim of education was not restricted to the training of philosophers. This was particularly because he lived in the fourth century of the Islamic era, quite apart from the fact that this Greek idea was that of an élite. Therefore Avicenna makes 'the education of the philosopher' one of his educational aims among others at the specialization stage, to which anyone who wished could direct himself in accordance with his aptitudes and inclinations. This is the difference between his education system and that of al-Ghazali, for example, or al-Qabisi;

for while we find that ‘the education of the philosopher’ was hardly included in their writings, Avicenna goes into great detail about it, the sciences which should be studied, and the aim and the benefits of each one of them.

We can say then that education in Avicenna’s opinion is the making of an upright citizen, sound in body and mind, and preparing him for some intellectual or a practical work. Intellectual work could be connected to the traditional sciences or to the theoretical sciences that Avicenna esteemed so highly. He counts ‘industry’ or ‘crafts’ as a kind of instruction requiring vocational preparation and specialization. He says: ‘Instruction and learning include the practical, like carpentry and dyeing, for it is only acquired by practice of that craft’

## THE EDUCATIONAL STAGES

### **The infant stage: from birth until the second year**

Avicenna’s concern with the child begins from birth. ‘When he is born, the child’s umbilical cord must be cut at once, above four fingers’ length, and tied with clean, fine wool twisted lightly, so as not to cause pain; if we wish to swaddle him, then the midwife must first massage his limbs gently; she must inspect his body where this is necessary, moving every limb into the best position; all of this by gentle touching with the tips of her fingers which should become a regular habit, and she should often wipe his eyes with silk or something similar’. Avicenna is greatly concerned with everything connected with this stage: sleep, bathing, suckling, exercise suitable to the infant’s age. About the infant’s sleep, Avicenna says:

‘He should be put to sleep in a room with a mild temperature, not cold; the room should be fairly well shaded, with no direct rays of light. When he lies in his cot, the head should be higher than the rest of his body. Care must be taken that the cot does not allow his neck or limbs or his spine to be twisted in any way’.

Avicenna is insistent that the infant should be bathed more than once a day, and that the mother should herself suckle her child: he speaks at length on the mother’s milk, the normal length of breast-feeding, the number of feeds per day, and weaning, which should be undertaken gradually. From his long discourse we shall mention briefly the following extracts:

When the infant sleeps after feeding, the cradle should not be rocked violently, which would disturb the milk in his stomach, but only gently. To cry a little before feeding is beneficial. Breast-feeding normally lasts two years, and when the infant desires something besides milk this should be given gradually without forcing him. When his teeth begin to appear, he can move in gradual stages from being fed on mother’s milk to stronger food. At first this can be bread chewed by the nursing mother, then bread soaked in water and honey, juice or in milk. This should be given to him in small quantities and he should gradually be kept from the breast. As Avicenna says, ‘weaning should be gradual and not take place all at once’.

### **The stage of childhood**

This lasts from the third to the fifth year, at the time when ‘the child’s body strengthens, his tongue is free, and he is ready for instruction, and his hearing is attentive’. In ‘The Canon’, he defines the start of the sixth year as the end of that stage, whereupon he enters ‘the stage of primary teaching’. Avicenna says: ‘And when he has reached the age of 6 years, he should be brought to the tutor and the teacher’. We see Avicenna not concerned here with any specific kind of teaching, but merely with creating a happy childhood as regards physical, mental and moral health. Therefore he concentrates here on three educational concerns:

(i) The child’s morals, and keeping him away from any harmful influences which might affect his soul and his morals.

(ii) Development of the body and movement. Regarding the need for play and exercise in that stage, Avicenna says: ‘When the child wakes from sleep, it is best for him to be bathed, then let him play for an hour; then he is given a little food to eat, then he is allowed to play for a long time, then he is bathed, then fed. Children should not be allowed to drink water straight after food, for then it would go into their system raw without being digested’. Games form a necessary element in the child’s life at this stage, whereby he acquires various physical and motor skills. He also learns how to live in a group and benefit from that life.

(iii) The development of taste and behavior. Avicenna had an interest in music and considered it necessary for the child to listen to it, so that from the time he is in the cradle, he goes to sleep to the sound of music. That prepares him later to learn music; and this education in taste will be further refined in the next stage, when he learns simple poetry with easy rhymes, bringing the child pleasure as well as encouraging him to appreciate virtue.

### **The first stage of teaching**

This begins at the age of 6 and ends approximately at 14 years of age. It is on reaching this age that the child must begin receiving education of a more serious kind, gradually moving away from games and sport, and beginning organized study. ‘Until [children] complete their fourteenth year, they must gradually decrease their sporting activities’. At this stage, children learn ‘the principles of Islamic culture’, from the Qur’an and Arabic poetry, calligraphy, and Islamic rules of good conduct. This is a common stage for all children, since preferences have not yet appeared. Later, aptitudes make their appearance, and in accordance with these every individual can be given particular instruction.

Avicenna considers that group instruction and not individual instruction is best at this level. He advises that the child be brought up with others, saying: ‘The child should be taught alongside the children of the nobility (the great or the rulers) whose conduct is good and whose habits are acceptable. For one child will teach another, learning from him and becoming his friend. If one child is left alone with the teacher, that is most likely to be unsatisfactory for them both; when the educator moves from one pupil to another, the risk of boredom is less, the pace of activities is more rapid and the child is eager to learn and succeed’.

### **The specialized education stage (age 14 onwards)**

This comes after the child has completed general primary teaching, and his aptitudes have become apparent either to continue in the field of education or to learn a craft and earn a living. In the light of these aptitudes, the young person defines for himself the type of study or the type of vocational work that appeals to him during the higher or specialized stage. Avicenna emphasized the need to have regard for the young person's preferences at this level when defining his future, his studies and the choice of profession; he insists that young people should not have any kind of study or work forced on them that does not correspond to their abilities and inclinations. The teacher must know 'that not every craft the child desires is possible nor opportune for him, but the one that conforms to his nature and suits him. If skill and crafts were simply obtainable on demand, without question of appropriateness or suitability, then no one would be devoid of them, and people would all agree to choose the most noble skills and the highest of crafts'.

What then are the standards for defining educational and vocational inclinations among students at this stage? And how can the teacher direct the student to a type of learning or profession that he sees as suitable for him? Avicenna considers that this is evident directly from the conduct of the child, and 'the boy's guide', either his father or his teacher, will notice specific inclinations. From the practical angle, this can be ascertained by observing the student's conduct. Defining the true origin of inclination or ability is for Avicenna a difficult matter: 'These choices and these suitabilities and conformities have obscure and hidden causes which tax human understanding, and are too subtle to be measured or identified, so only the Almighty knows them'.

Avicenna remarks that students differ in their aptitudes and abilities, and sees the need of educational and professional guidance at that stage. There is nothing unusual about that in an age when science and knowledge were in full expansion, when crafts and professional groups abounded, and when trade guilds were found everywhere. Likewise Avicenna was aware of the 'mentally challenged' and the 'simple-minded', who were incapable of benefiting from any kind of theoretical or practical education. He considers that they and their like must be given a special place apart where they would live under the supervision of a warden. Those for whom there was no hope of improvement should have their care and their sustenance guaranteed. Avicenna says: 'It may happen that a person's nature is incompatible with any culture or attention, and he learns nothing from them. This can be seen from the fact that people of intelligence have wished to educate their sons, and have expended much effort and expense on that purpose, without attaining their objective'.



**An unlikely tale concerning the cure of a psychiatric patient is often attributed to Avicenna. A man who believed himself to be a cow asked to be sacrificed. Approaching the patient, Avicenna exclaimed that he should indeed be sent to the slaughter house. When the happy patient moaned loudly in agreement, Avicenna quickly proclaimed that the cow was too thin and had to be fattened before slaughter. His aides fed the patient, and as the man regained his health, he soon fell out of his melancholia and was cured of his delusion.**

An anecdote from Avicenna's life

Avicenna points out very clearly the necessity for educational and vocational guidance. He appreciated the very close connection between education and the economic and social needs of society, as well as the role of individual aptitudes and abilities in defining the type of learning or trade in which each student should specialize; thus, he makes the higher stage of education that of specialization. Each student would then specialize in the science or the trade which he wished to be his future occupation, and the source of his income in working life. Avicenna perceives too that this specializing stage comes only after a period of general education in which all students participate, and where they learn the principles of Islamic culture, before allowing their talents and special aptitudes to come to the fore when all that is completed. So it is on this basis that the higher specialized stage follows.

## TEACHING METHODS

### **Infants under 6 years**

We have pointed out that Avicenna is concerned at this stage with the child's sensory and motor development and with moral and emotional training. We are not aware of Avicenna having indicated any specific methods at this stage, apart from physical exercise and music; one for the child's growth and his physical and motor development, so that he should acquire thereby a great many moral and mental habits; and the other to refine his feelings and to heighten his emotions.

Avicenna is very much concerned with games at this age, as well as in primary education. He shows us the role of exercise in education and its necessary place in the child's life, and explains that exercise differs according to age, and also with the child's ability. For exercise may be much or little; it can be very vigorous, demanding considerable physical strength; it can also be slight; swift or slow; it can be rapid, combining strength and speed; and again it can be relaxing. Each of these types has its own appropriate place and necessity in the life of the young child. But

Avicenna is as concerned with play and exercise at this level of education as he is with 'musical education'. We know that Avicenna was skilled in this art, both as a composer and a performer. So it is in the capacity of an expert that he mentions the feelings of pleasure, joy, purity and the sense of exaltation which music brings about in the child: and also the way the child can learn to perceive harmony and discord, treble and bass, and how this comes about. Avicenna speaks at length about music, its composition and rhythm, and the instruments used.

So sport and music are the most important components of the method in this stage. They are the two methods of instruction which prepare the child for organized 'primary teaching' in the next stage, when he reaches 6 years of age.

### **Methods at the 'primary' stage (6 to 14 years)**

The components of study in this stage are the Qur'an and its memorization, learning to read and write, acquiring the outlines of religion and study of some Arabic poetry; besides which he is again aware of the need for play and exercise. Avicenna says: 'When the boy's joints strengthen, and his tongue is apt, and he is ready for instruction, and his hearing is attentive, he begins to learn the Qur'an, and is shown letters of the alphabet, and is instructed in the outlines of religion. The boy should recite the rajaz (poetic verse), then the qasida (classic ode); the rajaz is easier and is more quickly learned because its stanzas are shorter and its rhythm lighter'.

The child should first recite the rajaz, since it is easier to remember. The verses the child memorizes must make plain the usage of good manners and of learning, and the disgrace of ignorance and foolishness; it must encourage respect towards parents, acceptable behavior, hospitality to guests, and high moral standards. This means that the poetry which Avicenna wants to be presented to the child at this stage is literature with a message, which contributes to the boy's training, and giving him that moral education which Avicenna considers to be the human being's goal and the source of his happiness.

The curriculum put forward by Avicenna reminds us of society's concern at that time with Islamic culture and its basic elements: the Qur'an, poetry, devoutness and ethics. On the other hand, he does not ignore the child's need for play, movement and diversion, so that his curriculum does not really differ very much from that followed by the modern child in the majority of Islamic countries today, except for its concentration upon 'memorizing the Qur'an' and in giving this learning 'absolute priority'.

### **Methods of higher instruction (age 14 onwards)**

Instruction at this stage is specialized according to the pupil's future occupation that has been chosen depending on his inclinations and aptitudes. This is an open-ended education, meaning that it continues throughout life. Avicenna says: 'When he has finished learning the Qur'an and memorizing the fundamentals of the language, at that time one should look into what occupation is desired for him, and he should be directed on this path; if [his teacher or guardian] wishes him to study literature, then to the study of language he adds that of epistles, speeches, argument and dialogue, and similar subjects; calculation is explained, and he is initiated into administration

through a practical course; care is taken with his handwriting; and if he seems destined for another discipline, he is guided accordingly’.

Avicenna divided the education of his day into theoretical instruction and manual or practical instruction (trade, jewelry making or another craft). This practical learning ‘is acquired by diligent practice in the activity of that craft’, or by being trained in it. Theoretical education, on the other hand, is that which is acquired from ‘speech heard or understood, which naturally conveys a belief or an opinion, or creates an impression which did not exist before’. This theoretical teaching is also made up of two kinds: ‘transmitted’ theoretical teaching, and intellectual or philosophical theoretical teaching. Each type of theoretical or practical teaching—and likewise every form of transmitted or intellectual teaching—has its means and methods which prepare the individual for specialization in the chosen field. We would wish that Avicenna had spoken in greater detail about these three methods of teaching (transmitted, intellectual and vocational). Unfortunately, he restricted himself to drawing attention to them, which does, however, indicate their existence at that time. His subsequent writings speak at greater length about the methods by which the students of the intellectual sciences were taught.



A Statue of Avicenna in Dushanbe, Tajikistan. Photo: Wikipedia Commons.

## METHODS OF INSTRUCTION

### **The method of learning the Qur’an, calligraphy and arabic literature**

In the lands of Transoxania in Avicenna’s day, handwriting was taught by the Qur’an teacher, as Ibn Khaldun makes clear in his *Muqaddima*.<sup>58</sup> It appears that when Avicenna says: ‘When the boy’s joints strengthen, and his tongue is apt, and he is ready for instruction, and his hearing is attentive, he begins to learn the Qur’an, and is shown letters of the alphabet [...]’, he refers to the practice current in his day for teaching ‘handwriting’ by drawing on a wooden ‘slate’. The teacher would draw the letters of the Arabic alphabet, and the child would have to learn them,

both by heart and by hand, until he could write and pronounce them perfectly. Then came the next stage —composing individual words and sentences. After that the pupil could begin writing with his own ‘slate’ the Qur’anic verses which he had to learn by heart. Avicenna says: ‘And when he has reached the age of 6 years, he should be brought to the the tutor and the teacher’; to the tutor so that he can memorize some Arabic poetry and to the teacher to memorize the holy Qur’an. Avicenna considers that the tutor should choose poems that are simple in expression and language, with short stanzas and a light meter so that students can easily memorize and understand them. The tutor must be careful to select poetry which has been composed with a high moral purpose, praising noble virtues and condemning misdeeds, because the child during these years is strongly influenced by what he reads and hears.

### **Styles of moral education**

Avicenna shows a profound understanding of the psychological bases of moral education. Here he has a double approach, since he is interested both in a concern for incentives, as represented by good examples, a healthy environment, encouragement, persuasion and kindness; and also in preventive measures, such as admonition with anger and punishment. Avicenna is much concerned about the harm that could result from physical punishment, permitting it only in cases of necessity, considering that excessive beating includes an element of revenge and does not achieve the desired educational effect.

### **Various methods of higher education**

When we read accounts of the teaching methods followed by Avicenna himself in his study circles and in imparting learning to his students, we find that he did not restrict himself to any one method. Sometimes he dictated his lessons to the students, sometimes he held discussions with them; most often he gave them explanations, composed treatises or books to present his point of view, or replied to some epistle, and he would advise his students to read, investigate and study, indicating to them particular reference books for every branch of learning.

### **Practical application**

After he has chosen the particular branch of learning in which he was going to specialize and has made some progress, Avicenna advised the student to put this learning into practice. If the student was studying medicine, he should try to apply himself in a practical way to this profession. If he was studying literature, calligraphy and composition, he should try to earn his living by his pen. Avicenna’s intention is for the student to become more responsive to his studies and to have greater faith in their usefulness, as well as perfecting them through practical application, at the same time as learning to earn a living. Avicenna says: ‘If the boy is immersed in his craft to some extent, then it is a good moment for him to earn his livelihood from it, because it brings two advantages: first, when he is rewarded by the enjoyment of earning through his own craft and recognizes its potential, he will have esteem for it, and will be all the more motivated to excel in it and to explore all its secrets, and, secondly, he becomes accustomed to earning his own livelihood’.



Avicenna perceives how important it is to make a good choice of teacher, and to give him a good theoretical and moral training. Indeed, the teacher's role in educating young people goes beyond presenting them with facts, for students acquire from their teachers a great many habits, ideas and values. Therefore, Avicenna requires that the teacher should be an excellent person, discerning the values of society and moral virtues so that the students will follow him as a guide and model. Avicenna says: 'The educator must be intelligent, a man of religion, [...] skilful at instructing children, dignified, calm, far removed from foolishness or pleasantries, not given to levity or slackness in the youth's presence; neither rigid nor dull; on the contrary, he should be kind and understanding, virtuous, clean and correct. He is one who has served the leaders of the nation, knows the kingly virtues in which they take pride and the correct manners used in society.'

Avicenna noticed that the teacher not only conveys knowledge and facts to his students, but brings them into contact with those values and ideas in which he believes, and those manners and virtues with which he is endowed. If he for his part transmits knowledge with care and feeling, then the students will copy his manners and his virtues, effortlessly and without realizing it, in the process of 'learning by imitation'.

#### CONCLUSION

This glance at Avicenna's educational thinking shows him as an original thinker, with distinctive educational views. In addition, he was the leader of a philosophical school which influenced education both in the Islamic east and the Christian west. For these many reasons, we still have a great deal to learn from him today.

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Please read Part I at [Great Muslim Thinkers: Avicenna on Education \(Part I\)](#)