

The methods of assisting with knowledge construction in Iranian pre-schools: An evaluative perspective

HAMEEDY, Mansoor A.
Alzahra University, Tehran
RANJBAR, Mehrnoosh F.
Alzahra University, Tehran

Abstract: The early childhood education programs would be the most appropriate place to initiate any program of change in any educational system, as they constitute the very foundation of the entire educating process. If children are to become self regulated explorers/learners in adolescence and adulthood, they must start doing so in early childhood. It is at this initial stage that children need to recognize themselves as constructors of their knowledge, and their teachers as assistants in this process of construction. Of all aspects of a program, i.e. philosophy and goals, activities and materials, and methods, it is the latter that could decide its success/failure. This would be as true in Iran as in any where else. Pre-primary programs in **Iran** manifest themselves in a variety of forms as they are developed and implemented by different institutions. Among these programs, the **preschool programs** are the most recent. Considering this fact and the importance of pre-school education on the one hand, and the significance of the methods used in implementing these programs on the other, it appeared necessary to **evaluate** the methods used in three types of Pre-schools in **Tehran** from a **constructivist** perspective. A sample of pre-schools was selected and the methods of interaction between the teachers and the pupils were observed. Furthermore, the teachers were interviewed and the pupils tested to gather the necessary data. **It is expected** that the methods used in all three types of pre-school programs are mostly **behaviorist** in nature and hence, no significant difference between them shall be observed.

Theoretical and Practical framework

The early years of a child's life, as the basis for later stages of development, is the most appropriate period for some of the most basic lessons of life to be learnt. In this period the rate of development is higher than other phases and as a result, it is undeniable that special attention to education in this period is due. Any change or improvement in the educational system needs to have its foundations laid in this period if it is to succeed, that is why most specialists stress on the existence of special conditions in which the child has adequate opportunity to experiment and learn. Depending on the dominant philosophical leanings, a given system of education utilizes methods stemming from that philosophy, and naturally pursuing different goals than another system having a different philosophy. Any philosophical outlook governing the educational programs for the early years not only determines the methods of teaching/learning in that stage, but also paves the way for the same philosophy and methods be used in later stages. Positivist and constructivist approaches

emphasize different objectives and methods. Hence, it is important to see if the preschools follow one or the other.

The positivist theories of behaviorism which have dominated the educational scene across the globe during the past one hundred years consider learning as an observable change in behavior resulted from knowledge and skills acquired through experience (Sanrock, 2002). Behaviorists, according to Safe (2002), stress using all senses, controlling the learning environment, teacher transferring knowledge to student directly, overlook the affective dimension, and as Woolfolk (2002) points out, consider students as empty vessels to be filled by the teachers. In methods based on behaviorism, teachers identify the subject to be learnt, verbally transfer the necessary information to the students, measure the extent of learning at different stages, and reinforce desired activities while students are the passive recipients of the offered material (Safe, 2002). In a way of pointing out the shortcomings of the behaviorist approach, it has been said that the curricula are fixed, inflexible, and Unisom (Seyedmohammadee, 2003) overlooking social and affective functions (Woolfolk, 2002). These very shortcomings paved the way for the emergence and popularization of constructivism and constructivist methods in education.

From the constructivist perspective, learning is the reconstruction of one's cognitive structures or meanings based on experience (which brings about affective and behavioral changes of course!) wherein the learner interprets new information, relates them to the previously constructed cognitive structures, and so constructs knowledge (Sheykhfeene, 2002). Given the centrality of the learner's role in constructing knowledge, constructivist methods call for conditions to be brought about wherein the learner can engage in reconstruction of cognitive structures via activity and experience. One example of such methods is what is called the method of open education which is based on Piaget's theory of cognitive development. In this approach, according to Hameedy (2002), the emphasis is on the openness of the learning environment, diversity of the learning media, group interaction, freedom of choice for the learner, attention to individual needs and characteristics of the learners, multiple evaluations, and having more than one teacher. In all constructivist approaches the teacher is viewed as the guide and facilitator who provides opportunities for the learners to re-evaluate and reconstruct their cognitive structures in interaction with each other (Mohammadian, 2003). In these methods, concrete experiences for the preschoolers are much more stressed than anything that bears on the abstract ever so vaguely. Furthermore, the teacher, from the constructivist view, is not perceived as a source of power rather as facilitator who focuses on real problems of the student's life (Nasraabaadee & Noroozee, 2003; Seyedmohammadee, 2003). Teaching/learning methods would only be useful if match the learner's developmental characteristics. According to the Piagetian view the preschoolers are also preoperational, meaning that they are egocentric and mostly concretely oriented. Knowing these characteristics would help any teacher in selecting teaching methods and

materials as well as planning and organizing learning activities; activities through which the learners can interact with their peers and teachers in order to reconstruct their cognitive structures (Hameedy, 2002). Clearly the constructivist perspective differs from that of the positivists both philosophically and hence, methodologically, and given the difference, seems to better suit the preschoolers. Thus in practice one would expect any early education program, like those in Iran, to have adopted such perspective.

The early education programs in Iran have as long of an history as does the university education, and come in many forms and shapes as they are sponsored and ran by many different agencies. Close to 80 years ago the first kindergarten was established by the then Ministry of Culture, and then slowly other Ministries and organizations, such as the Welfare Organization, entered the scene. Today, many of the pre school centers are private institutions monitored by either the Ministry of Education or the Welfare Organization who run many pre-schools themselves. Considering the importance of the preschool education in determining the quality of the learning experiences in later stages, it is appropriate to ask if the quality of these different programs is in such a way that ensures its continuation during the later stages of development and learning. More specifically, are the methods used in these programs alike to the extent they follow the constructivist perspective? The purpose of the present study in asking this question is primarily to help with the improvement of the quality of education in general and in preschool in particular. Knowing the quality of preschool education, and the characteristics of methods used therein would help with the planning of any intervention in order to bring about change in education. Of course one can come up with a reasonable and probable answer to this question by reviewing a sample of related studies already conducted.

Literature Review

Many studies on preschool education and its impact on the development of physical, cognitive, affective, and social skills have been conducted. Molaaee(2003), Shareefniaa (2000), and Noroozzaadeh (1994) have shown that the students achievement in primary school is greatly affected by their preschool experience. Beerashk & Moraadee (2004) reports many research that show children's social interaction and development are also positively affected by attending preschool. Children who had attended preschool were more responsible, expressive, and cooperative than those who had not. This effect was more pronounced among children of lower social classes and lead to their better adaptation. Furthermore, children attending preschool engaged more in group games and less in lonesome activities as they also showed more independence. Meerzaadeh (1986) and Esaakniaa (1993) have also shown that those who had gone to preschool were capable of better social and emotional adaptation in the first grade. Alaahyaaree (2002) and Salmaan (1993) have found that the physical activities in preschool lead to children's better cognitive development and improved sensory-motor functioning.

There are few studies which have dealt with the question of preschool methods of teaching/learning. Seyedmohammadee (2003) reports on the advantages of the child-centered methods over the teacher-centered methods for children aged 3-6. Those exposed to the former were more aware of their capabilities, seeking less adults' approval, were less worried about school, and preferred challenging tasks. In another study, the 4 year old kindergartners exposed to child-centered methods achieved more in linguistic and motor skills. Shokoheenejaad (2001) has discovered that the child center methods help to increase the preschoolers' creativity, just as Safe (1995) has said the same thing about the open teaching method since in this approach conditions are such that the child discovers his/her capabilities, becomes more self confident, and dares to create. Most researchers believe that the traditional methods emphasizing transference of information and memorization actually stall cognitive development and any tendency toward exploration and hence, creativity (Baraahanee, 2002). Thus one can conclude that the so called active and child-centered methods are more effective than the old methods. Yet, considering the findings of Sha'baanee (1999) regarding the prevalence of the traditional and teacher-centered methods in Iranian educational system, it is unlikely that the method used in Iranian preschools is any different. Hence, it is hypothesized that the methods used in the three different types of Iranian preschools are similar and more behaviorist in orientation than constructivist.

Methods

To test this hypothesis, the necessary data were collected from three groups of preschool teachers whose knowledge, affects, and behaviors in relationship to the methods they use in preschool were measured once. The measurement was conducted within the classroom a month into the new school year. Additional data were also gathered from observing three sets of preschool classrooms in action. These data were also gathered during the same week as the first set, but prior to them in order not to sensitize the teachers towards methods they used. The observation was done by two observers who went through a training session in order to maximize their inter-rater reliability.

The data sources were from among all preschool teachers in Tehran whose population is spread out through the 19 school districts across the five geographic divisions of north, south, east, west, and center wherein a socio-economic variability is assumed. To select a representative sample, initially from each of the five geographic divisions one school district and then from each district one or two preschools of each of the three types (ministerial, departmental, and private) were randomly selected and all their teachers targeted. Given the range of 3-4 teachers in each preschool, a total of 55 teachers in 15 preschools have participated in the study. From among class sessions in each preschool, one was randomly selected for observation.

Measures used in this study consisted of a questionnaire and an observation instrument. The teachers' questionnaire (TQ) consists of a set of sixteen statements on the extent of the use of different aspects of positivist and constructivist teaching methods. The validity of this instrument was confirmed by a panel of three educational psychologists. Its reliability was measured by test-retest method to be high. The observation instrument (OI), on the other hand, consists of a set of eight observable signs that can indicate whether the nature of the method used in the classroom is leaning towards being positivist or constructivist. The validity of this instrument was also determined by the same panel to be adequate while its reliability was measured by determining the correlation between the trial data collected by two independent observers ($r = 0.87$).

Given that the TQ data were considered to be interval, their analysis will be done by using the one way ANOVA since the research hypothesis calls for a comparison between three groups of preschool teachers. The OI data are nominal and their analysis will be done using the Chi Squared test providing further evidence on the status of the preschools in terms of their teaching method.

Expected Results

Given the previous findings, and also the general signs, it is expected that the methods used in the sampled preschools are not that different from each other and not that constructivist in nature.

References

- Alaahyaaree, M., (2002). بررسی تاثیر فعالیت بدنی منتخب بر عملکرد ادراکی-حرکتی کودکان پیش دبستانی. دانشگاه تربیت معلم، تهران.
- Baraahanee, M. N., (2002). زمینه روان شناسی. انتشارات رشد. تهران.
- Beerashk, B. & Moraadee, S., (2004). بررسی رابطه‌ی آموزش‌های پیش دبستانی با سازگاری اجتماعی دانش‌آموزان کلاس اول ابتدایی تهران. پژوهشکده تعلیم و تربیت، تهران.
- Esaakniaa, H., (1993). بررسی تاثیر آموزش پیش دبستانی بر پیشرفت ذهنی-تحصیلی و سازگاری عاطفی و اجتماعی کودکان دبستانی خراسان. دانشگاه علامه طباطبایی، تهران.
- Hameedy, M. A., (2002). آموزه‌نامه‌ی شماره 22. دانشگاه الزهراء، تهران.
- Meerzaadeh, M., (1986). بررسی تاثیر آموزش پیش دبستانی بر سازگاری اجتماعی-عاطفی کودکان اول ابتدایی. دانشگاه تهران، تهران.
- Mohammadian, K., (2003). بهر هگیری از هیافت ساختگرایی در آموزش و تدریس. تکنولوژی آموزشی، شماره‌ی آبان ماه.
- Molaaee, M., (2003). شناسایی نقطه‌های قوت و ضعف برنامه‌های پیش دبستانی. دانشگاه تربیت معلم، تهران.
- Nasraabaadee, H. & Noroozee, R., (2003). راهبردهای جدید آموزش در هزاره‌ی سوم (جلد اول). انتشارات سایر قلم، تهران.
- Noroozzaadeh, R., (1994). بررسی تاثیر آموزش پیش دبستانی بر کارآمدی تحصیلی دانش‌آموزان پایه اول تا سوم بجنورد. دانشگاه علامه طباطبایی، تهران.

- Safe, H., (1995). بررسی نقش آموزش نقاشی به روش باز در پرورش خلاقیت کودکان. دانشگاه تربیت مدرس، تهران.
- Safe, A. A., (2002). روان‌شناسی پرورشی. نشر آگاه، تهران.
- Salmaan, Z., (1993). بررسی فعالیت‌های بدنی در تحول ذهنی کودکان پیش‌دبستانی. دانشگاه تربیت مدرس، تهران.
- Santrock, J. W., (2002). *Life Span Development*, McGraw Hill, Boston.
- Syedmohammadee, Y., (2003). روان‌شناسی رشد. انتشارات ارسباران، تهران.
- Sha'baanee, S., (1999). بررسی روش‌های تدریس متوال دبیران دوره راهنمایی در فرایند یاددهی و یادگیری. سازمان پژوهش و برنامه‌ریزی آموزشی، تهران.
- Shareefniaa, M., (2000). بررسی نقش آموزش پیش‌دبستانی بر آگاهی‌های بهداشتی دانش‌آموزان اول دبستان تهران. دانشگاه علوم بهزیستی و توان‌بخشی، تهران.
- Sheykhfeenee, A. A., (2002). مبانی فلسفی سازنده‌گرایی و دلالت‌های یاددهی و یادگیری. دانشگاه تربیت مدرس، تهران.
- Shokooheenejaad, N., (2001). مقایسه تاثیر شیوه‌های آموزشی بر بروز خلاقیت کودکان پیش‌دبستانی. دانشگاه الزهراء، تهران.
- Woolfolk, A. (2002). *Educational Psychology*. Allyn and Bacon: London.