

Full Length Research Paper

Attitudes of Teachers towards Language Material Selection, Development and Use in Early Childhood Education Programme

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Teacher attitude is of importance in teaching and learning in Early Childhood Development and Education (ECDE) Centers including the selection, development and use of language materials. However, in Gem District in the Republic of Kenya, it has been alleged that ECDE teachers lack interest in the selection, development and use of language materials in teaching and learning. This may negatively influence children's interest in language learning and acquisition. The purpose of this study was to determine teachers' attitude towards selection, development and use of language materials with regard to target tasks, human, administrative and physical factors. The study involved 68 teachers drawn from 115 ECDE centers in Gem District, Kenya selected by simple random technique representing 33% of the population. It was based on descriptive survey design. Data was collected by use of attitude test questionnaires. The study found that 91% of the teachers had positive attitudes towards target tasks, 80.8 % towards human factors, 76.5 % for physical factors and 69% for administrative factors with regard to language material selection, development and use.

Key words: Attitudes, ECDE language materials, selection, development, use

INTRODUCTION

Ralph and Kings (1997) have defined attitude as a mental predisposition towards people, objects, events, situations or ideas. Attitude may be considered as a mental state of readiness to respond that is organized through experiences and will exert a directive influence or behavior (Ralph and Kings, 1997). Attitudes mean the individual's prevailing tendency to respond favorably or unfavorably to an object (person or group of people, institutions or events). Attitudes can be positive (values) or negative (prejudice). Social psychologists distinguish and study three components of the responses; a) Cognitive component, which is knowledge about an attitude object, whether accurate or not; b) affective component: feelings towards the object and c) conative or behavioral component, which is the action taken towards the object. Jung (2006) states the primary

function of attitudes is to provide some kind of organization of the world we live in. It defines outward or visible postures and human beliefs. Attitudes determine what each individual will see, hear, think and do. They are rooted in experience and do not become automatic routine conduct. Margolin (2002) observes that an ECDE teacher occupies an important place in the total education growth of the child. She serves as a role model in a child's life. Her attitude towards selection, development and use of language materials and teaching language in general has far implication on children as far as learning language is concerned.

The way individuals perceive themselves results in beliefs, opinions and hence, attitude formation. Individuals perceive themselves in terms of strength and limitations. In addition, they judge themselves on the basis of whether they are capable or incapable to perform certain tasks. In other words, they perceive their self efficacy out of their own judgment (Hohn, 1995).

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Haber (2005) says that attitude is based on both ideas and feelings. It is the result of both cognitive and affective components. Psychologists agree that attitude has three main components: a cognitive or thought, an emotional or affective and a behavioral or action component. Lindzey (1998) refers to the concept and beliefs associated with attitude as the cognitive component of the attitude. This is the information we accept about an object, concept or event, whether the information is accurate or not. Beliefs are the actual components of attitude, even though they are perceived rather than being objective facts (Lindzey, 1998).

Many educators agree that teachers' attitude and beliefs may affect instructional practice (Nespor, 1997; Pajares, 1992). This means that teachers' attitude affects the selection, development and use of language materials. Souza and Elia (1997) studied secondary school teachers and determined types of teaching attitudes. They included a lack of confidence about subject content, resistance to curricula and methodological innovations, a lack of coherence between classroom practices and expressed educational beliefs, and a lack of commitment towards god learning. Despite the lack of attention to attitudes in teacher workshops, research on teacher professional development consistently indicates that attitudes are closely related to teachers' knowledge acquisition and classroom practice (Pajares, 1992, 1996; Vartuli, 2005).

Kenya recognizes the importance of ECDE as the most important lever for accelerating the attainment of Education For All (EFA) and the Millennium Development Goals (MDGs) (Republic of Kenya, 2006). It has been noted that currently in Kenya, over half of the ECDE teachers are untrained (Republic of Kenya, 2006), majority are Class eight and Form four leavers while those who have been trained are certificate holders, thus creating a worrying scenario. The Kamunge Commission (Republic of Kenya, 1988) noted that majority of these teachers in Kenya end up in ECDE teaching profession simply because they have no alternative jobs. In Gem District about 65% of the ECDE teachers are untrained. Concerns have been raised over the poor state of the ECDE programmes with regard to teachers' attitudes towards ECDE learning in general and specifically to language material selection, development and use (District Education Officer, 2009). However there is lack of information on teacher attitudes towards language material selection, development and use. Without this information, it would be difficult to implement appropriate strategies to address the problem. Therefore, this study intended to determine the attitude of teachers towards language material selection, development and use.

In this study target tasks referred to lesson objectives and content which are a major influence in material selection, development and use. Selection, development and use of language materials should be done with the lesson objectives and content to be taught in mind. This

should also take into consideration the teaching and learning methods to be used. Human factors were looked at in terms of teacher and learners' preparedness. Learners' preparedness includes extent of motivation, experiences, interests, individual differences and ability while teacher preparedness was looked at in terms of preferences, skills and knowledge. Physical factors were looked at in terms of availability of adequate time and the necessary physical facilities which enhance selection, developing and use of materials. And finally administrative factors were looked at in terms of material availability and cost.

Given the nature of the study that is an assessment of teacher attitudes towards language material selection, development and use in ECDE centers, the study opted to use the teachers as they are very vital and influential in raising standards whatever the existing situation (Fullan, 2001).

Objectives of the Study

Investigate attitudes of teachers towards language materials selection, development and use in relation to:

- (i) Target tasks (lesson objectives and content)
- (ii) Human factors (Learner and teacher characteristics)
- (iii) Administrative factors (cost of material & availability)
- (iv) Physical factors (Time availability & facilities)

MATERIALS AND METHODS

Research Design

Descriptive survey design was chosen because it is appropriate for educational fact finding and yields a great deal of information, which is accurate. The research aimed at gathering accurate information on the attitudes of teachers towards language materials selection, development and use with regard to target tasks (lesson objectives and content), human factors (teacher and learner characteristics), administrative factors (material availability and cost) and physical factors (physical facilities and time availability).

Sample and Venue

Simple random sampling technique was used to select 68 teachers drawn from 115 ECDE centers in Gem District, Kenya, representing 33.3% of the study population. Simple random technique was used because it reduces the chance variation between a sample and the population it represents (Grinnel, 1993; Mugenda and Mugenda, 1999).

Data Collection Instruments

Attitude Test Questionnaire (ATQ) was used to collect data from teachers regarding their attitudes towards selection, development and use of language materials in relation to target tasks, human, administrative and physical factors. The rating scale constructed for this study followed the likert scale construction. The likert-type scale (or method of summated ratings) is the most widely used method of scale construction because of its relative ease of construction, its use of fewer statistical assumptions and the fact that, in contrast to other scaling techniques; no judges are required (Karakas-Doukas, 2011). The statements covered the main aspects of the language material selection, development and use: Human factors (teacher and learner characteristics); Target tasks (Lesson objectives and content); Administrative factors (material availability and cost) and Physical factors (availability of time and physical facilities). The initial pool of items consisted of 40 statements (16 favorable and 24 unfavorable statements). Many statements overlapped in content but differed in wording; this was done in order to determine which wording was best. The statements were placed in random order and next to the items was a grid consisting of five columns: 'strongly agree' 'agree' 'Uncertain' 'disagree' and 'strongly disagree'. each column had a particular value i.e. 5, 4,3,2,1 respectively. Respondents were asked to tick the appropriate box, to indicate how they agreed or disagreed with each statement. It was decided that a high score on the scale would imply a favorable attitude. Thus favorable statements (i.e. statements consonant with language material selection, development and use) would be scored at 5 for strongly agree down to 1 for strongly disagree; for the scoring of unfavorable statements the scoring was reversed (unfavorable items scored 1 for strongly agree to 5 for strongly disagree. Attitude scale was used to measure attitudes of respondents towards language material selection, development and use and was based on the Likert scale. The scale involved defining the issue towards which attitudes might be expressed and measured. It is made up of series of statements, which are related to a person's attitude towards a single object. Statements are either favorable or unfavorable.

Pilot Study

To establish reliability of the research instruments, a pilot study was carried out in 6 ECDE centers involving 12 teachers (6% of the study population) using test-retest method. The two tests were administered at an interval of two weeks. This was done so as to find out whether the terms used were understood by the teachers and also to guard against the response set, distortion of data and subjectivity of responses. Teachers who participated in

the pilot study were not involved in the final study. This method of establishing reliability of instruments was appropriate for the instruments that gather data which is qualitative in nature (Joppe, 2000; Creswell and Miller, 2000). For validity of the instrument to be ensured, three experts on the topic from Maseno University, examined the content of the instrument and advised the researcher on the content validity. Their feedback was used to revise the instruments.

Data Collection Procedures

The researcher sought for a research permit and research authorization letter from the Ministry of Higher Education, Science and Technology before the process of data collection in the field. The instrument was administered through personal visits on appointment with teachers. The questionnaires were filled by the teachers and collected by the researcher after a fortnight. The researcher observed the general status of the centers and held discussions with the respective teachers during the collection of the questionnaires.

Data Analysis Procedure

Quantitative data was analyzed by use of descriptive statistics, namely frequency, mean scores and percentages. Qualitative data was categorized and reported in emergent themes. Watson (1994), defines qualitative data analysis is a systematic procedure followed in order to identify essential features, themes and categories. Data was then presented in frequencies, percentages, scores, mean scores and tables.

RESULTS

Attitudes of Teachers

The highest possible score that can be obtained in the attitude scale and the one indicative of the most favorable attitude towards language material selection, development and use is 200 (by scoring 5, the highest mark on all 40 statements), while the lowest and the one indicating the least favorable attitude towards language material selection, development and use is 40. Respondents scores can therefore fall within a continuum from 40-200, the middle (neutral) point of the continuum being 120 (achieved by being uncertain about all 40 items). There were four categories and each had 2 sub-categories thus 8 sub categories each having 5 statements.

It should be pointed out that one of the limitations of Likert-type-of –scale is the difficulty of establishing a neutral point and consequently a neutral score on the

Table 1: Teacher scores on the attitude scale

| Teacher | Score | Teacher | Score | Teacher | Score | Teacher | Score |
|---------|-------|---------|-------|---------|-------|---------|-------|
| 1 | 170 | 18 | 140 | 35 | 123 | 52 | 154 |
| 2 | 165 | 19 | 145 | 36 | 125 | 53 | 166 |
| 3 | 154 | 20 | 146 | 37 | 118 | 54 | 170 |
| 4 | 166 | 21 | 135 | 38 | 115 | 55 | 167 |
| 5 | 170 | 22 | 132 | 39 | 145 | 56 | 155 |
| 6 | 167 | 23 | 126 | 40 | 150 | 57 | 121 |
| 7 | 155 | 24 | 125 | 41 | 125 | 58 | 125 |
| 8 | 165 | 25 | 125 | 42 | 118 | 59 | 118 |
| 9 | 140 | 26 | 123 | 43 | 122 | 60 | 115 |
| 10 | 145 | 27 | 154 | 44 | 125 | 61 | 145 |
| 11 | 146 | 28 | 166 | 45 | 118 | 62 | 150 |
| 12 | 135 | 29 | 170 | 46 | 115 | 63 | 140 |
| 13 | 132 | 30 | 167 | 47 | 145 | 64 | 145 |
| 14 | 126 | 31 | 146 | 48 | 150 | 65 | 146 |
| 15 | 125 | 32 | 135 | 49 | 125 | 66 | 135 |
| 16 | 125 | 33 | 132 | 50 | 118 | 67 | 132 |
| 17 | 123 | 34 | 126 | 51 | 135 | 68 | 126 |

scale. The neutral score is not necessarily the midpoint between the extreme scores (Oppenheim, 1992). This is because a respondent can obtain a middle-of-the-range score by either being uncertain about many items, or by holding inconsistent or strong favorable or strong unfavorable attitudes towards the attitude object in question. For purposes of presentation, however, the score of 120 was taken as the neutral or middle score of this study's attitude scale.

The attitude scale was given to 68 ECDE teachers and who were also interviewed. The results presented here focused on the 68 teachers' scores which were analyzed in depth. Table 1 shows their scores on the attitude scale.

Although the scores ranged considerably, the vast majority of the teachers seem to hold mildly favorable to favorable attitudes towards language material selection, development and use. With exception of 8 teachers (who scored below the midpoint), the rest of the teachers scored over 120, which - was the middle point of the continuum. The standard deviation of the 68 scores was SD =19.61 the average of the scores being 139.47.

Taken at face value, the scores seem to suggest that, on the while, teachers hold favorable attitudes towards language material selection, development and use.

Categories and sub-categories

Table 2 shows the Categories and Sub-categories in relation to language material selection, development and use.

Table 3 below indicates that majority of the teachers 65 (96%), 55 (80%), 50 (73.5%) and 55 (80%) gave favorable answers on selection with regard to target

tasks, human factors, administrative and physical factors respectively.

Table 4 below indicates that majority of the teachers 55 (80%), 56 (82%), 45 (66%) and 50(73.5%) gave favorable answers on the development of language materials with regard to target tasks, human factors, administrative and physical factors respectively.

Table 5 below indicates that majority of the teachers 65 (96%), 53 (77.9%), 45 (66%) and 50(73.5%) gave favorable answers on the use of language materials with regard to target tasks, human factors, administrative and physical factors respectively.

DISCUSSION

This study found that the Early Childhood Development and Education teachers generally had positive attitude towards language material selection, development and use with regard to target tasks, human factors, administrative and physical factors. In statistical terms, confidence accounted for approximately over half of the variability found in all teacher ratings. In applied terms, teachers who developed positive attitudes toward selection, development and use of language materials were more likely to be enthusiastic about language teaching and learning , confident in their ability to learn and apply new skills, and successful in teaching language.

This study seems to concur with Richards and Lockhart (1994) who stated that the importance of taking teachers' attitude as the starting point in any learning process has finally been recognized by educators.

Numerous other studies indicate that teachers'

Table 2: Categories and Sub-categories in relation to language material selection, development and use

| Basic categories & Sub-categories | In terms of Human factors (Learner & Teacher Characteristics) | In terms of Target tasks (Lesson objectives & Content) | In terms of administrative Factors (Material availability & cost) | In terms of Physical factors(Physical facilities & time availability) |
|--|--|--|---|---|
| | Very influential, influential, less influential, not influential | Level of importance; very important, important, less important and not important | Readily available, available, scarcely available, not available. Very costly, costly, Less costly and not costly | Very adequate, adequate, inadequate and very inadequate |

Table 3: Teachers' opinion on the selection of the language materials

| Frequency | Categories and sub-categories | Opinion-Quotation |
|------------------|--|---|
| 65 | Target tasks Lesson objectives Lesson content | When selecting we have to consider lesson objectives Content should march with what is to be selected |
| 55 | Human factors Teacher characteristics Learner characteristics | The teacher must be prepared in order to select materials appropriately We should be able to have knowledge of the learner when doing our selection. |
| 50 | Administrative factors material availability material cost | Administrators have a role to play in availing materials The cost of materials influences our ability to carry out selection. |
| 55 | Physical factors Time availability physical facilities | Time is of concern in selecting language materials We have to consider our classrooms since we have to select what can be used in our environment. |

attitudes are associated with their sense of self-efficacy. Positive attitudes are strongly correlated with positive mindsets. Attitudes influence teachers thinking, behavior, and motivation (Berk, 1985; Cassidy et al., 1995; Pajares, 1996). The strength of teachers' attitudes help determine " how much effort they will expend on an activity, how long they will persevere when confronted with obstacles, and how resilient they will be when faced with adversity" (Vartuli, 2005). This is supported by Chen and Chang, (in press) who say that given their influence and effects, targeting attitudes contributes significantly to the effectiveness of teacher professional development programs. A teacher's comfort level, confidence, and interest may vary by domain. Whether or not a

professional development program recognizes them, attitudes affect teacher motivation and progress as well as implementation of new practices. Practices include teaching methods and materials. Some teaching methods, such as actively involving children in learning, hold across domains. Others are more appropriate for particular domains.

A study by Moallem and Micallef (1997) reported that greater computer use was associated with more positive teacher attitudes. They did not examine whether greater use is also associated with higher skill. Promoting computer use, without supporting skill development, may lead to teacher frustration rather than positive attitudes. With instructional strategies that build on

Table 4: Teachers' opinion on the Development of the language materials

| Frequency | Categories and sub-categories | Opinion-Quotation |
|-----------|--|--|
| 55 | Target tasks Lesson objectives Lesson content | We have to develop language material as per our lesson objectives. Lesson content is very influential while developing language materials. |
| | Human factors Teacher characteristics Learner characteristics | Teacher characteristics are vital in developing language materials.. Learner ability, experiences e.t.c has to be put into consideration when developing language materials. |
| 45 | Administrative factors material availability material cost | Material availability influences us when we are developing language materials. The material cost is of importance as we have to carry out improvisation at times. |
| 50 | Physical factors Time availability physical facilities | Time is of importance as we struggle to allocate time for the developing of language materials. Physical facilities influence us in that we have to develop materials which can be applicable in a given surrounding. |

Table 5: Teachers' opinion on the use of the language materials

| Frequency | Categories and sub-categories | Opinion-Quotation |
|-----------|--|---|
| 65 | Target tasks Lesson objectives Lesson content | They influence the use of materials a great deal. Materials used have to be in tandem with the lesson content. |
| | Human factors Teacher characteristics Learner characteristics | Teacher preparedness is of importance in the use of language materials. Learner characteristics have to be taken into consideration when using language materials. |
| 45 | Administrative factors material availability material cost | When using materials we have to consider their availability and their adequacy. At times we have to forego some materials due to their cost. |
| 50 | Physical factors Time availability physical facilities | Enough time has to be created for the use of language materials in class. For proper learning to take place, physical facilities such as spacious classrooms for displaying language materials for use is necessary. |

interrelationships and integrate attitudes, attitudes can also be starting point for professional development. This may also be applicable to the ECDE situation where

selection, development and use of language materials is required.

Karavas-Doukas (1996) also found that teacher

candidates had positive attitudes towards material development course in language learning. This is a positive gesture in teacher training courses as it would go along way in improving the teachers' perception towards learning at all levels.

Orodho (1990) found that teacher attitudes either negative or positive had a role to play in the teaching and learning of early childhood science. The findings also concur with those of Margolin (2002) who says that the attitude of the teacher is critical in laying the foundation of the learners.

Asan (2002) also found that generally pre-service teachers have positive attitudes towards the computer and its software and were very much comfortable while using the computer in teaching and learning process (Uyangor and Ece, 2010).

There may be several reasons why attitudes are not a primary concern in many professional development programs. In contrast to knowledge and skills, which tend to be external and objective, attitudes tend to reflect subjective evaluation, affect, and judgment (Pajares, 1992). Knowledge and skills are relatively explicit and easy to measure; attitudes are implicit and difficult to articulate. Knowledge and skills are more readily defined as deliverables that can be covered in specific time periods. In contrast, attitudes that are associated with belief systems and permeable by nature cannot easily be altered in one-day time frames. Because attitudes are subjective and difficult to articulate, program instructors may be unclear about how to promote them. Teachers themselves may be hesitant to openly discuss their attitudes.

CONCLUSIONS

Based on the findings, the following are the conclusions of the study:

(i) Teachers in Gem district had positive attitude towards language material selection, development and use.

(ii) Majority of teachers, 62 (91%) had positive attitudes while 6 (9%) had negative attitudes towards language material selection, development and use with regard to target tasks (Lesson objectives and content).

(iii) Majority of teachers, 55 (80.8%) had positive attitudes while 13 (19.2%) had negative attitudes towards language material selection, development and use with regard to Human factors (teacher and learner characteristics).

(iv) Majority of teachers, 47 (69.1%) had positive attitudes while 21 (30.9%) had negative attitude towards language material selection, development and use with regard to administrative factors (material cost and availability).

(v) On language material selection, development and use in relation to physical factors (time and physical

facilities availability), majority of teachers 52 (76.5%) had positive attitudes while 16 (23.5%) had negative attitudes.

(vi) From the findings, majority of the teachers, 62 (91%) had positive attitudes towards target tasks, 55 (80.8%) for human factors, 52 (76.5%) for physical factors and 47 (69.1%) administrative with regard to language material selection, development and use.

RECOMMENDATIONS

Based on the above conclusions, the study recommends that:

(i) There is need to sensitize the teachers the importance of learner characteristics through emphasis in the courses undertaken so as to develop a positive attitude with regard to selection, development and use of language materials.

(ii) There is need to empower the ECDE administrators and teachers through acquisition of relevant knowledge to enable them be able to improvise and acquire language materials from the local environment so as to facilitate language teaching and learning.

(iii) The ECDE teachers should be sensitized on the importance of having adequate time to facilitate and enhance language material selection, development and use for effective teaching and learning.

(iv) A program should be designed to build community capacities for the development and equipment of partnership with the government and other stakeholders. This will ensure that ECDE centers have adequate facilities and learning resources.

REFERENCES

- Asan, K. (2002). Attitudes of pre-service teachers from the department of elementary education towards the effects of materials use on learning. *Turkish Online J. Educ. Technol.* 9(2):47.
- Berk L (1985). Relationship of caregiver education to child-oriented attitudes, job satisfaction and behaviors toward children. *Child Care Q.* 14(2):103-129.
- Cassidy DJ, Buell MJ, Puegh-Hoese S, Russell S (1995). The effect of education on Child care teachers' beliefs and classroom quality: Year one evaluation of the TEACH early childhood associate degree scholarship program. *Early Childhood Res. Q.* 10 (2): 171-183.
- Chen, JQ, Chang C (in press). A comprehensive approach to technology training for early childhood teachers. *Early Education and Development.*
- Creswell JW, Miller DL (2000) Determining Validity in qualitative inquiry. *Theory into Practice*, 39 (3):124-131.
- Fullan M (2001). *The New Meaning of Educational Change*. London: Routledge Falmer.
- Grinnel RM (1993). *Social Work Research Evaluation*. Illinois: Peacock Publishers.
- Haber RN (2005) *An Introduction to Psychology*. New York: Holt, Rinehart and Winston, Inc.
- Hohn R (1995). *Classroom Learning and Teaching*. New York: Longman Publishers.
- Joppe M (2000). *The Research Process*. Retrieved on 10th Jan. 2011. Available (online) @ <http://www.ryerson.ca/~mjoppe/rp.htm>
- Jung FL (2006) *Revised Science Attitude Scale for Pre-Service Elementary Teachers: Reexamined*. Paper presented at the Annual

- Meeting of the National Research in Science Teaching Conference, Anaheim, CA.
- Karavas-Doukas E (1996) Using attitude Scales to investigate teachers' attitudes to the Communicative approach. Retrieved on 12th Feb. 2011. Available (online) @eltj.oxfordjournals.org.
- Lindzey G (1998). Psychology. New York: Worth Publishers.
- Margolin JB (2002). Teaching Young Children at School and Home. New York: Macmillan Publishing Co.Inc.
- Moallem M, Micallef S (1997, February). Instructional technologists at public schools: A study of the role and effectiveness of technology resource teachers. Paper presented at the national convention of the Association for Educational Communications and Technology, Albuquerque, NM.
- Mugenda MO, Mugenda GA (1999). Research Methods: Qualitative and Quantitative Approaches. Nairobi: Acts Press.
- Nespor J (1997). The role of beliefs in the practice of teaching. J. curriculum Stud.19, 317-328.
- Nunan D. (1991). Methods in Second Language Classroom Research: a Critical review'Studies in second Language Acquisition 13/2: 249-74.
- Oppenheim, AN (1992). Questionnaire Design, Interviewing & Attitude Measurement. London, New York: Pinter.
- Orodho JMA (1990) "The Path of Development through Science and Technology: The Dilemma of Kenya" Seminar Paper No 20209 presented at the Bureau of Research at Kenyatta University (October 23rd 1990).
- Pajares F (1996). Self-efficacy beliefs in academic settings. Rev. Educ. Res. 66(4):543-578.
- Pajares FM (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. Rev. Educ. Res. 62(3):307-332.
- Ralph M, Kings G (1997) Teaching Science for All Children (2nd Ed.) New Jersey; Allyn and Bacon. A Viacom Company.
- Republic of Kenya (1988). Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond. Nairobi: Government Printer.
- Republic of Kenya (2006). Ministry of Education Strategic Plan 2006-2011. Nairobi: Government Printer.
- Republic of Kenya (2009). Siaya (Gem) District Annual Report. Siaya District Center for Early Childhood Education. Unpublished Report.
- Richards JC, Lockhart C (1994). Reflective Teaching in Second Language Classrooms. Cambridge University Press.
- Souza BS, Elia MF (1997). Physics teachers' attitudes: How do they affect the reality Classroom and models of change? Connecting research in Physics Education with Teacher Education. Int. Comm. Physics Educ. 21(7):37-44
- Uyangor SM, Ece DK (2010). The attitudes of the Prospective Mathematics Teachers Towards Instructional Technologies & Material Development Course. TOJET. 9 issue No 1. Retrieved on 12th Feb. 2011.
- Vartuli S (2005). Beliefs: The heart of teaching. Young Children. 60(5):76-86
- Watson G (1994). Writing a Thesis: A guide to Long Essays and Dissertations. London. Longman Publishers.