

INVESTIGATING TEACHERS' PERCEPTIONS AND PRACTICES ABOUT ALTERNATE ASSESSMENT

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Abstract

This study was conducted to compare the teachers' perceptions and practices about alternate assessment at university level. It was non experimental quantitative research. The accessible population of the study consisted of all the universities of the Punjab. For true representation of the population University of the Punjab Lahore, University of Education (UE) Lahore (Okara Campus) and COMSAT University Sahiwal were selected. Data was collected through developed instruments namely questionnaire on teachers' perceptions (QTP) was developed by the researcher which comprised 25 items on five points Lickert scale. It had two factors, assignments and project method. Similarly questionnaire on teachers' practices (QTP) about alternate assessment was also developed consisted 12 items. For the analysis of data both t-test and Pearson correlation were used. It was concluded that most of the teachers were agreed about the use of assignments and project method as an alternate assessment during classroom instruction. It was also found that there is no significant difference between male and female teachers' perceptions and practices about the use of alternate assessment. It was concluded that there is found significant difference between male and female teachers' practices about the use of project as an alternate assessment method. Furthermore, it was found that there is significant relationship between teachers' perceptions and practices about the use of alternate assessment. It was also the conclusion of the study that no significant relationship is found between teachers' perceptions and practices about the use of assignments as an alternate assessment method.

Key words: Alternate Assessment, perception

1. Introduction

Assessment plays key role in education. Design authentic assessment tasks which are challenging intellectually can improve student learning and performance. If teachers set more demanding tasks students are more likely to generate better quality work (*Kohl and Luke*). While the creation and validation of assessments and their alignment with classroom teaching is of high demand (Memillan 2003). The challenges to curriculum are difficult and are associated with teachers' epistemologies in classroom assessment J. Richards (1999) describes "assessment as the measurement of the ability of a person or the quality or success of a teaching course".

To ask learners to demonstrate the understanding and comprehension of the subject matter is important for the learning process; it is necessary to assess whether the goals of education or standards of teaching lessons are being achieved, George Lucas (2008). Assessment techniques and needs probably bear greater impact on how and what learners learn than any other factor. This factor may be greater important than the impact of instructional material (Bound, 1988, p.39).

Assessment is important in the teaching and learning process. In fact, a teacher needs to assess this process and to know whether the goals behind the course are being achieved or not. Therefore, he/ she has to assess what the students are learning and even his/ her own performance. However, the traditional way of assessment, namely testing is not really efficient for many reasons.

In fact, traditional assessment is more concerned with the scores rather than the effectiveness of the tests and the curriculum or the needs of the students. The students, parents and even the administrators give much importance to the grades and consider them a means to evaluate the learners as well as the teacher. This makes the latter focuses more on activities and revision before the test than on the needs of the students or the reliability of the test itself.

Besides, a test which is done under time pressure can never reflect the real talents and abilities of a learner. Moreover, as the teacher is the only one who prepares and corrects the tests. That way of assessment is rather teacher-centred and the learners are passive. Another point is that this approach of assessment does not take into consideration individual differences among students. It is rather based on the philosophy that one test will fit all of them which is not true. That is why it cannot be effective.

Alternate assessment is a substitute to traditional assessment which is an integral part of teaching learning process (Shepard, 2000) and concentrates on direct performance (Kane, Crooks and Cohen, 1999) and is designed to assess performance. It is believed that alternate assessment is not only the use of alternate kinds of assessment but also an alternate as part of learning process (Pellegrino, Baxter and Glaser, 1999). Alternate assessment is not concerned with summative purposes (Stobart and Gipps, 1997). Alternate assessment is considered as an alternative to standardised testing and all of the problems which are associated with such testing. There is no single definition of alternate assessment. Rather various labels have been used to make distinction to it from traditional assessment. (Garcia and Pearson 1994) include the following in their review of these labels: performance assessment, authentic assessment, portfolio assessment, informal assessment, situated assessment and assessment by exhibition. Alternate assessment causes reform in teaching methods and curriculum (Fredrikson and Collins, 1989).

Alternate assessment serves many purposes such as; to provide a measure of learners' proficiency to inform parents to help teachers plan instructional strategy, (Browder et al. (2005), Snell and Brown (2006). alternate assessment emphasises on "similarity between the curriculum outcome and the actually observed performance et. al ; (1999, p.7). Alternate assessment has a number of further categories which are treated as equivalent, Shepard and Bleim (1995).

Two of alternatives to traditional assessment are assignments and project methods. More teachers have recently begun assignments and projects as alternate assessment methods in all curricular activities to achieve different goals. The difference between traditional methods of assessment is based on anxiety generating, quantitative, summative, teacher centred, judgemental, unfair, limited time frames and marks. While on the contrary, alternate assessment is integrated with teaching-learning on-going formative, performance based, collaborative, qualitative and developmental. (Shepard, 2000; Sadler, 1989). It is other than

paper pencil assessment. Alternate assessment is considered to be the better way of assessment than that of the traditional one but alternate assessment is hardly detected by the teachers' perceptions and practices in educational institutions.

The same is the situation with alternate assessment in Pakistan which can influence the performance of the teachers as well the students. In Pakistani educational institutions, alternate assessment is rarely in use. Unfortunately, it is hard to find any authentic research in this particular area. Therefore, the researcher has planned to determine the teachers' perceptions and practices about the use of assignments and project as an alternate assessment method.

2. Rationale of the Study

There is no doubt that the progress of any country depends on its educational system. Education system mainly depends on assessment. Every educational system requires quality education and this quality education depends on effective assessment system. Teachers play very pivotal role in assessment, NoreenTahira (2015). They select and use appropriate methodologies and innovative assessment methods. Conventional assessment methods are mostly based on the memorization and learning by rote. So, the dream of quality education and standard of education cannot be fulfilled. The most important thing that ensures this quality and standard of education is alternate assessment which tests the actual performance and abilities of students. The major objective of education is to provide such a healthy environment for students in which their learning must be enhanced. Alternate assessment fulfils this requirement. Alternate assessment creates a supportive interaction among the students and their teachers. Alternate assessment makes classroom environment healthy, competitive, collaborative, and motivating and encouraging for students, they are confident and connected with their teachers, show much interest and taste for their studies, they behave decently, more civilized, well cultured and well-mannered because of healthy interaction with their teachers. Therefore, it is necessary for teachers to realize the value of choice and use of appropriate alternate assessment methods to achieve the desired goals. For the achievement of this purpose the study was undertaken to explore the teachers' perceptions and practices regarding alternate assessment methods at university level.

3. Statement of the Problem

Alternate assessment methods and their appropriate use is the key for a successful educational system in a country. Absence of this factor may influence the effectiveness of the teaching and learning process. However, those teachers who have ability to apply alternate assessment methods are likely to become successful teachers to obtain determined goals. Alternate assessment methods are being used by the teachers of the world. But, in Pakistan, there is dearth of any authentic research in this particular area. Hence, the researcher has decided to determine the perceptions and practices among the teachers about the use of alternate assessment methods at university level in Pakistan.

4. Objectives of the Study

The objectives of the study were:

1. To explore the teachers' perceptions about alternate assessment
2. To compare the male and female teachers' perceptions and practices regarding alternate assessment
3. To find out the relationship between teachers' perceptions and practices about the use of alternate assessment

5. Research Questions

1. What types of perceptions teachers have about alternate assessment?
2. Is there any difference between male and female teachers' perceptions regarding alternate assessment?
3. Is there any difference between male and female teachers' practices about alternate assessment?
4. Is there any significant relationship between teachers' perceptions and practices about the use of alternate assessment?

6. Significance of the Study

There are many factors which influence the performance both of the teachers as well as the students. Alternate assessment is one of those important factors. It is important to explore the teachers' perceptions and practices regarding alternate assessment. The teachers, students, educationists, curriculum developers, experts of assessment, policy makers and educational administrators will utilize to accomplish the task of attaining desired level of assessing students and teachers' competencies. Therefore, the study under investigation will be an attempt to investigate teachers' perceptions and practices about alternate assessment methods at university level.

In teaching learning process, the most important and key factor affecting students' learning is the teacher. Actually the teacher is a person who has the ability to transfer knowledge, values and skills to next generation. Therefore, understanding of teachers' problems, demands and needs is very essential to improve the whole educational system, to enhance teachers' ability to utilize appropriate assessment methods to improve the teaching learning process, Noreen Tahira (2015).

The potential results of the study will assist teachers to understand the significance of utilizing alternate assessment to ensure quality education.

The results will also help teachers' methods for fostering student's intelligence, promoting their academic performance and channelizing their abilities in a right direction. The abilities and confidence of students will be raised by using alternate assessment methods. The study will help the education leaders at the level of policy and practice to utilize the results in

different ways to support, motivate and enhance teachers' practices about the use of alternate assessment. The research at hand will also be valuable addition in the existing fund of knowledge in the field of teachers' perceptions and practices about alternate assessment methods at university level. Findings and recommendations may be kept in view for further study purpose.

7. Delimitations

Due to time and financial restrains the study was delimited to male and female teachers and students teaching and learning, in natural and social sciences in the University of the Punjab Lahore, Education University Lahore (Okara Campus) and COMSAT University Sahiwal, at post graduate level.

8. Research Design

The research variables were i.e. teachers' perceptions and practices about alternate assessment. Teachers' perceptions and practices were not manipulated; hence, it was non experimental quantitative research. Because most of non-experimental quantitative researches use questionnaire for the collection of data for the determination of the status of subjects such as the present study does, therefore, by method this was survey type descriptive research. The study was also an ex-post facto type of research as the variables under investigation had already occurred and were measured in natural setting of university environment. The researcher also attempted to determine the relationship between the teachers' perceptions and practices so it was also correlation research in nature.

Population of the Study

All the male and female teachers (lecturers, assistant professors, associate professors and professors) from the University of the Punjab Lahore, Education University Lahore (Okara Campus) and COMSAT University Sahiwal working in natural and social sciences constituted the population of the study. All the male and female students of natural and social sciences departments were also included in the population of the study.

9. Sample of the study

For actual representation of the three universities multistage random sampling technique was used. Firstly from all the public and private sector Universities of the Punjab Province, University of the Punjab, University of Education Lahore (Okara Campus) and COMSAT University Sahiwal were selected through convenient sampling technique, because it was convenient to collect data from these universities. Secondly for true representation 140 teachers and 350 students were selected through random sampling technique and were

delivered self-reporting questionnaires. The total sample size comprised 490 teachers and students.

10. Research Instruments

To measure teachers' perceptions "questionnaire on teachers' perceptions" (QTP) was developed by the researcher. Similarly, questionnaire on teachers' practices" (QTP) was also prepared by the researcher.

Teachers' perceptions were measured through questionnaire on teachers' perception was developed and was self-reporting questionnaire to measure the teachers' perceptions about alternate assessment. The questionnaire was divided into two parts first for assignments and second for project method consisted of 25 items. Similarly the questionnaire on teachers' practices was also developed to measure the teachers' practices about alternate assessment. It was also divided into two domains; one for assignments and other for project method comprised 12 items. Five point Likert scale was used to determine the level of agreement of the respondents. Both the questionnaires are present in the appendices.

11. Reliability of Instruments

Reliability means the consistency in assessment results, Sekaran (2003). It also means the capacity of an instrument providing the same results repeatedly. Cronbach's Alpha is one of the various measures used to test the reliability (Cronbach, 1978). If Cronbach's Alpha's value is higher than or equal to 0.7 then it is considered to be as good measure of reliability. Hence, in the study Cronbach Alpha was applied to measure the reliability of the instruments. The reliability of the questionnaire on teachers' perceptions was 0.719 and the questionnaire on teachers' practices was 0.616. The teachers and students involved in the try out process were not included in the final process of data collection. Therefore, it was worth-stating that the measure used in the study showed appropriate level of reliability.

The Alpha reliability of the questionnaires on teachers' perceptions and practices were tested in the perspective of Pakistan. Cronbach Alpha reliability co-efficient was determined 0.719 for the questionnaire on teachers' perceptions and 0.616 for the questionnaire on teachers' practices. So, it was appropriate to state that the questionnaires on teachers' perceptions and practices used in the study shown appropriate level of reliability.

12. Administration of Questionnaires

The teachers and students instructing and learning in the universities were approached and questionnaires were personally administered to collect data. The teachers and students were briefed about the purpose of the study and necessary information was provided regarding their response to the questionnaires. The respondents were also ensured that the provision of their information will be kept confidential. The data collection process was completed within 18 days of time span in the mid of December 2017. As a whole all the teachers and students behaved well while providing information on the questionnaires.

13. Data Analysis and Interpretation

The data was collected from male and female teachers as well as students from University of the Punjab, Education University Lahore (Okara campus) and COMSAT University Sahiwal, instructing and studying in natural and social sciences departments. The data was analysed through statistical package for social sciences (SPSS-20). Both descriptive and inferential statistics were used to analyse and interpret data. The sample of the study was described and demographic variables of the participants were reported in descriptive statistics while statistical results were shown in inferential statistics.

Table : Teachers' Perceptions about the use of Alternate Assessment Methods

	N	Mean
Assignments Method	110	3.711
Project Method	110	3.724

Table shows the mean scores regarding the use of assignments and project methods reflect that teachers agree that they are using assignment ($\bar{x} = 3.711$) and project ($\bar{x} = 3.724$) as alternate assessment methods.

Table: Comparison of Teachers' Perceptions about the use of Alternate Assessment Methods

	N	Mean	T	P
Male	75	3.713	0.187	0.852
Female	35	3.728		

The comparison between male and female teachers' perceptions reflects that there does not exist any difference ($p = 0.852 > 0.05$) between male and female teachers' perceptions about the use of alternate assessment of classroom instruction.

Table: Comparison of Teachers' Perceptions about the use of Project Method as an Alternate Assessment

	N	Mean	T	P
Male	75	3.696	1.018	0.311
Female	35	3.785		

Above comparison reflects that there is no significant difference ($p = 0.311 > 0.05$) between male and female teachers' perceptions about the use of project method as an alternate assessment.

Table: Comparison of Teachers' Perceptions about the use of Assignment Methods as an Alternate Assessment

	N	Mean	T	P
Male	75	3.730	0.602	0.548
Female	34	3.670		

Table shows comparison that there is no significant difference ($p = 0.548 > 0.05$) between male and female teachers' perceptions about the use assignments as an alternate assessment method.

Table: Teachers' Practices about the use of Alternate Assessment Methods

	N	Mean
Assignment Method	300	3.707
Project Method	300	3.700

Above table depicts that there are 300 students, mean score for the use of assignments ($\bar{x} = 3.707$) and project methods ($\bar{x} = 3.700$) reflect that teachers are using assignments and project methods as an alternate assessment during classroom instruction.

Table: Comparison of Teachers' Practices about the use of Alternate Assessment Methods

	N	Mean	T	P
Male	150	3.766	1.538	0.125
Female	150	3.641		

Comparison in above table reflects that there is no significant difference ($p = 0.125 > 0.05$) between male and female teachers' practices while using alternate assessment methods.

Table: Comparison of Teachers' Practices about the use of Assignments as an Alternate Assessment Method

	N	Mean	T	P
Male	150	3.723	0.396	0.692
Female	150	3.677		

Comparison in table reflects that there is no significant difference ($p = 0.692 > 0.05$) between male and female teachers' practices in the use of assignment methods as an alternate assessment.

Table: Comparison of Teachers' Practices about the use of Project Method as an Alternate Assessment

	N	Mean	T	P
Male	150	3.810	2.547	0.011
Female	150	3.605		

Analysis in the above table shows the comparison that there is significant difference ($p = 0.011 < 0.05$) between male and female teachers' practices about the use of project method as an alternate assessment.

Table: Relationship between Teachers' Perceptions and Practices about the use of Alternate Assessment Methods

	N	Mean	Pearson r	P
Perceptions	110	3.718	0.211	0.027
Practices	300	3.704		

It is shown in table, that significant relationship ($r = 0.211$) exists between teachers' perceptions and practices. ($p=0.027<0.05$) regarding the use of assignments and project methods as an alternate assessment.

Table: Relationship between Teachers' Perceptions and Practices about the use of Assignment Methods as an Alternate Assessment

	N	Mean	Pearson r	P
Perceptions about Assignments	109	3.711	0.151	0.116
Practices about Assignments	300	3.700		

Table shows that there is no significant relationship ($r = 0.151$) between teachers' perceptions and practices regarding the use of assignment methods ($p = 0.116 > 0.05$) as an alternate assessment.

Table: Relationship between Teachers' Perceptions and Practices about the use of Project Method as an Alternate Assessment

	N	Mean	Pearson r	P
Perceptions about Project Method	110	3.724	0.193	0.043
Practices about Project Method	300	3.707		

Analysis in above table shows significant relationship ($r = 0.193$) between teachers' perceptions and practices about the use of project method ($p = 0.043 < 0.05$) as an alternate assessment.

14. Findings

No significant difference ($p = 0.851 > 0.05$) was found between male and female teachers' perceptions about the use of alternate assessment methods during classroom instruction. Similarly there was found no significant difference ($p = 0.311 > 0.05$) between male and female teachers' perceptions about the use of project method as an alternate assessment. In the same way no difference ($p = 0.548 > 0.05$) was found between male and female teachers' perceptions about the use of assignment method as an alternate assessment. No significant difference ($p = 0.125 > 0.05$) was found between male and female teachers' practices while using alternate assessment. Similarly there was no significant difference ($p = 0.692 > 0.05$) between male and female teachers' practices about the use of assignment method as an alternate assessment. There was found significant difference ($p = 0.011 < 0.05$) between male and female teachers' practices about the use of project method as an alternate assessment. It was also found significant relationship ($p = 0.027 < 0.05$) between teachers' perceptions and practices about alternate assessment. There was no significant relationship ($p = 0.116 > 0.05$) between teachers' perceptions and practices about the use of assignment method as an alternate assessment during classroom instruction. Significant relationship ($p = 0.043 < 0.05$) was also found between teachers' perceptions and practices while using project method as an alternate assessment in classroom instruction.

15. Conclusion

It was concluded that most of the effective alternate assessment methods were assignments and project methods and both male and female teachers were agreed about the use of these methods. There was no significant difference between male and female teachers' perceptions regarding the use of alternate assessment. Most of the teachers were practising project and assignment methods as an alternate assessment during classroom instruction. There was no difference between the male and female teachers' practices about the use of assignment method as an alternate assessment during classroom instruction. Male and female teachers significantly showed difference about the use of project method as an alternate assessment. Significant relationship was found between teachers' perceptions and practices about the use of alternate assessment method. Significant relationship was found between teachers' perceptions and practices about the use project method as an alternate assessment. No significant relationship was found between teachers' perceptions and practices about the use of assignment method as an alternate assessment.

16. Discussion

The aim of the study was to investigate the teachers' perceptions and practices about alternate assessment. The study explored that most of the university teachers were practising assignments and project methods as an alternate assessment during classroom instruction at

post graduate level. This is an important finding as other researches' results are mirrored in the study. For instance, Slater (1996) found that most of the teachers were using alternate assessment. The study at hand also depicted that most of the teachers were using assignment and project methods as an alternate assessment. Similarly Segers and Dochy (2001) concluded the same perceptions about self and peer assessment in a problem based learning environment setting. Bacter and Glaser (1998) also supported the result of the study about the use of alternate assessment with subject to the individual differences. Biggs (1999) Black and William (1998). Bowden & Marton (1998) and Crooks (1998) argued that alternate assessment was the panacea for all assessment problems in higher education. According to Marton and Saljo (1997) alternate assessment had an important influence on students' approach to learning. Birenbaum and Feldman (1998) further described that teachers' perceptions about alternate assessment serve the purpose of guiding us in our reflective attempts to improve our educational practices and achieve a higher quality of learning and education for our students.

Moreover, researches like Sambel et al (1997) and Chambers (1992) explored that male and female teachers' perceptions did not differ regarding the use of alternate assessment. Some studies found gender effects with male and female being supportive towards alternate assessment methods.

Another result of this study was that there was significant difference between male and female teachers' practices regarding the use of project method as an alternate assessment. It was concluded that male teachers were better about the use of project method than that of female. For example, Marton and Saljo, (1997) studies also supported this finding. In accordance with these results it is said to be true that gender difference affects the teachers' practices about alternate assessment.

The study also found that there was no difference between male and female teachers' practices about the use of assignment method during classroom instruction. Similarly different studies e.g. Edelstein et al (2000) , Challis, (2001) Orsmond and Merry (1997) and Mires et al (2001) explored that significant relationship was found between male and female teachers' perceptions and practices about the use of alternate assessment. American education research association et al (1999) concluded that significant relationship existed between male and female teachers' perceptions and practices about alternate assessment.

However, it was found that there exists relationship between teachers' perceptions and practices about the use of project method as an alternate assessment. Some researches showed that male and female teachers' perceptions and practices had no relationship about the use of assignment method as alternate assessment. (Sambell and Macdowell, 1998,P400).Tan (2008) also mentioned that no significant relationship was found between male and female teachers' perceptions and practices about the use of assignment method as an alternate assessment.

17. Recommendations

Following recommendations are suggested by the researcher.

1. In Pakistan training programmes about the use of alternate assessment methods should be launched.
2. Benefits of the use of alternate assessments should be highlighted for the teachers.

3. Other alternate assessment methods should also be used by teachers.

18. References

- Abdul Rashid Mohamed, Abdul Ghani Abdullah and Shaik Abdul Malik Mohamed Ismail. (2006). It's about time that teachers unlock the mysteries of assessment in Malaysia school: Authentic assessment as a tool for students' self-assessment and self-adjustment. Humanising assessment: Compilation of presentation Papers.
- Al-Amir, S., (2009). *Computer-based testing vs. paper-based testing: establishing the comparability of reading tests through the evolution of a new comparability model in a Saudi EFL context*. Unpublished doctoral dissertation. University of Essex, England.
- Almond, P. J., Lehr, C., Thurlow, M. L., & Quenemoen, R. (2002). *Large-scale assessment programs for all students: Validity, technical adequacy and implementation*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Almond, P., Quenemoen, R., Olsen, K., & Thurlow, M. (2000). *Gray areas of assessment systems* (Synthesis Report No. 32). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved January 14, 2004, from: <http://education.umn.edu/NCEO/OnlinePubs/Synthesis32.html>
- American Educational Research Association. (1999). *Standards for Educational and Psychological Testing*. Washington: American Educational Research Association.
- American preschool children. *Language, Speech, and Hearing Services in Schools*, 27, 367–384.
- Anderson, R. (2002). Practical assessment strategies with Hispanic students. In A. E. Brice (Ed.), *The Hispanic child* (pp. 143–184).
- Aschbacher, P.R. (1994, June). Helping educators to develop and use alternative assessments: Barriers and facilitators. *Educational Policy*, 8, 202-223.
- Assad Iqbal, Irfan Anjum Manarvi (2011) *Teachers' attitudes and perceptions for alternative assessment techniques: a case study of Pakistani universities*
- Baker, E., & O'Neil, H. (1994) Performance assessment and equity, *Assessment in Education* 1(1), pp.11-26.
- Baker, E.L., O'Neil, H.F. Jr. & Linn, R.L. (1993). Policy and validity prospects for performance-based assessment. *American Psychologist*, 48, 1210-1218.
- Baxter, G. & Glaser, R. (1998) Investigating the cognitive complexity of science assessment, *Educational Measurement: Research and Practice*, 17, 3, pp.37-45.
- Bennett, R. E. (1999). *How the Internet will help large-scale assessment reinvents itself*. Education Policy Analysis Archives, 9(5), 1-25.
- Biggs, J. (1999) *Teaching for Quality Learning at University* (Buckingham, The Society for Research into Higher Education & The Open University Press).
- Birenbaum, M. (1996) *Assessment 2000: towards a pluralistic approach to assessment*.
- Boo, J. & Vispoel, W. (2012). *Computer versus paper-and-pencil assessment of educational development: A comparison of psychometric features and examinee preferences*. Psychological Reports, 111, 443-460.
- Boston: Allyn & Bacon. Cole, P., & Taylor, O. (1990). Performance of working-class African American children on three tests of articulation. *Language, Speech, and Hearing Services in Schools*, 21, 171–176.
- Brookfield, S 1987, *Developing critical thinkers: challenging adults to explore alternative ways of thinking and acting*, Open University Press, Milton Keynes.
- Browder, D. M. (2001). *Curriculum and assessment for students with moderate and severe disabilities*. New York, NY: Guildford Press.
- Browder, D., Spooner, F., Algozzine, R., Ahlgrim-Delzell, L., Flowers, C., & Karvonen, M. (2003). What we know and need to know about alternate assessment. *Exceptional Children*, 70(1), 45–61.
- Brown, H.D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall Regents.
- Brown, J. & Shavelson, R. (1994). *Does your testing match your teaching style?* *Instructor*, 103, 7, 86-89.
- Brown, J. D., & Judson, T. (1998). *The alternatives in language assessment*. *TESOL Quarterly*, 32, 653-675.
- Burrello, L. C., Lashley, C., & Beatty, E. E., (2000). *Educating all students together: How school leaders create unified systems*. Thousand Oaks, CA: Corwin Press.
- Cater, K., Rose, D., Thille, C., & Shaffer, D. (2010, June). *Innovations in the classroom*. Presentation at the Council of Chief State School Officers (CCSSO) National Conference on Student Assessment, Detroit MI.
- Challoner, J. (2009). *1001 Inventions that changed the world* (Cassell Illustrated: 2009).

- Children*, 59, 115–122.
- Clarke, D. (1987) 'A rationale for assessment alternatives in mathematics', *Australian Mathematics Teacher*, Vol. 43, No. 3, pp.8–10.
- Crooks, T. (1988) The impact of classroom evaluation practices on students, *Review of Educational Research* 58 (4), pp.438-81.
- Crooks, T., Kane, M. & Cohen, A. (1996) Threats to the valid use of assessment, *Assessment in Education*, 3, 3, pp.265-285.
- Diane Caldwell (2007) *Teacher perceptions on Student portfolio Assessment and Implementation*
- Diffily, Deborah (1994) *What Parents Think about Alternative Assessment*
- Kavaliauskien, G., Kaminskien, L. and Anusien, L. (2007) 'The challenges for ESP learners: alternative assessment of performance and usefulness of class activities', *Studies about Languages*, No. 10, pp.75–81.
- Kearns, J. F., Burdge, M., & Kleinert, H. K. (in press). *Alternate assessment (Innovations: Research to Practice Series)*. Washington, DC: American Association on Mental Retardation.
- Keiko Takahashi and Kazuyoshi Sato (2003) *Teacher Perception about Alternative Assessment and Student Learning*
- Messick, S. (1994) *The interplay of evidence and consequences in the validation of performance assessments*, *Educational Researcher* 23(2), pp.13-23.
- Messick, S. (1994). *Alternative Modes of Assessment, Uniform Standards of Validity*. Research Report. Princeton, New Jersey: Educational Testing Service.
- Mojarrad, H, Hemmati, F, Jafari Gohar, M, & Sadeghi , A. (2013). *Computer-based assessment (CBA) vs. Paper/pencil-based assessment (PPBA): An investigation into the performance and attitude of Iranian EFL learners' reading comprehension*. *International Journal of Language Learning and Applied Linguistics World*, 4(4), 418-428.
- Russell, C. & Kuhnert, K. (1992) New frontiers in management selection systems: where measurement technologies and theories collide, *Leadership Quarterly* 3, pp.109-
- Russell, M., Almond, P., Higgins, J., Clarke-Midura, J., Johnstone, C., Bechard, S., & Fedorchak, G. (2010, June). *Technology enabled assessments: Examining the potential for universal access and better measurement in achievement*. Presentation at the Council of Chief State School Officers (CCSSO) National Conference on Student Assessment, Detroit MN.
- Salvia, J., & Ysseldyke, J. E. (1998). *Assessment* (7th ed.). Boston: Houghton Mifflin.
- Sandra P. Laing, Alan Kamhi (2003) *Alternative Assessment of Language and Literacy in Culturally and Linguistically Diverse Populations*
- Shepard, L.A., and K. Cutts-Dougherty. (April 1991). "Effects of High-Stakes Testing on Instruction." Paper presented to the annual meeting of the American Educational Research Association in Chicago, Ill.
- some questions, *American Psychologist*, 18, pp.519-21.
- Taylor, O., & Payne, K. (1983). Culturally valid testing: A proactive approach. *Topics in Language Disorders*, 3, 8–20.
- Thompson, S. J.; Quenemoen, R. F.; Thurlow, M. L.; & Ysseldyke, J. E. (2001). *Alternate assessments for students with disabilities*. Thousand Oaks, CA: Corwin Press.
- Thurlow, M. L. (2000). *Assessment: A Key Component of Education Reform*. National Center on Educational Outcomes prepared for Parents
- Tindal, G., McDonald, M., Tedesco, M., Glasgow, A., Almond, P., Crawford, L., & Hollenbeck, K. (2003). *Alternate assessments in reading and math: development and validation for students with significant disabilities*. *Exceptional Children*, 69(4), 481–496.
- Tinzmann, M., Jones, B.F. & Pierce, J. (1992). Changing societal needs: changing how we think about curriculum and instruction. In Cathy Collins & John N. Mangieri (Eds.) *Teaching Thinking: An Agenda for the Twenty-First Century*. Hillsdale, New Jersey: Lawrence Erlbaum Associates Publishers.
- Tinzmann, M.B., Jones, B.F., Fennimore, T.F., Bakker, J., Fine, C. & Pierce, J. (1990). *The Collaborative Classroom*. Oak Brook : NCREL.
- Title I—Improving the Academic Achievement of the Disadvantaged; Final Rule, 67 Fed. Reg. 71,709 (Dec. 2, 2002) (to be codified at 34 CFR pt. 200).

- Towles, E., Garrett, B., Burdette, P., & Burdge, M. (2003). *What are the consequences? Validation of large-scale alternate assessment systems and their influence on instruction*. Paper presented at the annual conference of the National Council on Measurement in Education, University of Kentucky.
- U.S. Dept. of Education. (2003, December 9). *New No Child Left Behind provision gives schools increased flexibility while ensuring all children count, including those with disabilities* (press release). Retrieved January 5, 2004 from <http://www.ed.gov/news/pressreleases/2003/12/12092003.html>
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.
- Wiggins, G. (1993) *Assessing Student Performance* (San Francisco, Jossey-Bass).
- Wiggins, G. (1997). *Practicing what we preach in designing authentic assessments*. *Educational Leadership*, 11, 2, 18-25.
- Wiggins, G. (1998) *An exchange of views on semantics, psychometrics and assessment reform: a close look at authentic assessments*, *Educational Researcher* 55, pp.19-22.
- Ysseldyke, J. & Olsen, K. (1999). Putting alternate assessments into practice: what to measure and possible sources of data. *Exceptional Children*, 65 (2), 175-286.