Bibliography

BIBLIOGRAPHY

Airasian, P. W. & Walsh, M. E. (1997). Constructivist Cautions. *The Phi Delta Kappan, 78(6)*, 444-449.

Agrawal, B. C. (1996). Pedagogy of Computer Literacy: An Indian Experience. New Delhi: Concept. In Sharma, R. C., Mishra, S. & Pilist, S. K. (2005). *Education in the Digital World.* Viva Books Private Limited: New Delhi.

Agrawal, B. C. (2005). Educational media in India. In U. V. Reddi & S. Mishra (Eds.), *Perspectives on distance education: educational media in Asia.* Vancouver, B.C.: Commonwealth of Learning.

Agrawal, B. C. & Sinha, A. K. (1981). *Satellite television in a Bihar village: A case study of SITE.* Ahmedabad: Indian Space Research Organization. Govt. of India.

American Association for the Advancement of Science. (1989). *Science for All Americans.* Washington, D.C.:AAAS.

Anita & Jayachandran (2009). Technology Integration Practices of foreign language pre-service teachers: A case study. *Dissertation Abstracts International,* 70(10), 186, 3746 A, The University of Iowa.

Andersson, A. (2010). Learning E-Learning: The Restructuring of Students Beliefs and Assumptions about Learning. *International Journal on E-Learning*, 9(4), 435-461. Retrieved from ERIC Journal (EJ905920).

Andreas & Quale (2001). On the Role of Mathematics in Physics: A Constructivist Epistemic Perspective. *Science & Education*, 20(7), 609-624. Retrieved from ERIC Journal (EJ930014).

Anning & Edwards (1999). *Promoting Children's Learning from Birth to Five.* Buckingham: Open University.

Ann-kim & Sungmi (2009). Thought Processes in proportional reasoning. *The Dissertation Abstracts International,* 70(11), 679, 4217 A, Harvard University.

Atkin, J. M. & Karplus, R. (1962). "Discovery or Invention?" *Science Teacher 29 (5)*, 45.

Ausubel, D. P. (1963). *Educational Psychology; a cognitive view*, New York: Holt Rinehart and Winston.

Ausubel, D. P. & Beran, J. A. (1968). *General Chemistry*. (2nd edn). New York: Holt Rinehart and Winston.

Bandyopadhyay, A. (2013). *Technology integration before student outcomes. Factors affecting teacher adoption of technology in India*. University of Maryland, College Park, ProQuest, UMI Dissertations Publishing, 3590597

Bar, D. (1990). A solution in search of a problem: the role of technology in educational reform. *Journal for the Education of the Gifted, 14*, 79-95.

Barbour, R. S. (2007). *Doing Focus Groups*, London: Sage

Barry, J. & Dorit, M. (2005). Online Questionnaire for Evaluating Students' and Teachers' Perceptions of Constructivist Multimedia Learning Environments. *Research in Science Education 35*, 221-244, DOI: 10.1005/s 11165-005-2148-3

Bates, A. W. (2000*). Managing Technological Changes.* San Fransisco: Jocesey –Bass.

Berry, B. & Darling-Hammond, L. (1998). Does teacher certification matter? Evaluating the evidence. *Educational Evaluation and Policy Analysis, 23(1)*, 57–77.

Berman, T. R., Macpherson, K. A. & Schank, R. C. (1999). Learning by doing. *Instructional-design theories and models: A new paradigm of instructional theory*. 2. (161-181), Mahwah, NJ: Lawrence Erlbaum Associates.

Biggs, J. (1999). What the student does: teaching for enhanced learning. *Higher Education Research and Development, 18(1),* 57-75.

Bimbola, O. & Daniel, O. I. (2010). Effect of Constructivist-Based Teaching Strategy on Academic Performance of Students in Integrated Science at the Junior Secondary School Level. *Educational Research and Reviews, 5(7)*, 347-353. Retrieved from ERIC Journal (EJ898833).

Black, J. B. & McClintock, R. O. (1995). An Interpretation Construction Approach to Constructivist Design. In Wilson, B. (Ed.). *Constructivist Learning Environments*. Englewood Cliffs, NJ: Educational Technology Publications.

Boone & Kent, P. (2009). Linking Professional Development and student achievement: Closing the gap for teachers and learners. *Dissertation Abstracts International.70 (7)*, 2439-A. Walden University.

Broadhead, P. (2004). *Early Years Play and Learning: Developing Social Skills and Cooperation,* London: Routledger.

Brooks, J. G. (1990). Teachers and students: Constructivist forging new connections. *Educational Leadership. 47(5),* 68-71

Brooks, J. G. & Brooks, M. G. (1993). In *Search of understanding The case for Constructivist classrooms.* Alexandria, VA: Association for supervision and curriculum development.

Brooks, J.G. (1999). The Courage to be Constructivist. *Educational Leadership. 57(3),* 18-24.

Brooks & John (2010). The effectiveness of constructivist Science instructional methods on middle Science school students' achievement and motivation. *The Dissertation Abstracts International, 71(6),* 151, 1977 A. Walden University.

Brophy, J. E. & Good, T. L. (1994). *Educational Psychology· A realistic approach.* New York: Longman.

Brown & Gennean (2010). A study of Constructivist learning characteristics in learning communities. *The Dissertation Abstracts International, 71(6),* 99, 1977 A. Alliant International University Fresno.

Bruner, J. (1966). *Acts of meaning.* Cambridge: Harvard University press.

Bruner, J. & Genova, P. (1976). The role of play in the Problem-Solving of Young Children in Education. 19(3), 365-80. In MacNaughton G. (2003). *Shaping Early Childhood· Learners, Curriculum Contexts.* Maidenhead: Open University press.

Bruning, R., Schraw, G. & Ronning, R. (1999). *Cognitive Psychology and Instruction,* (3rd ed) . Upper Saddle River, New Jersey: Prentice-Hall.

Brush, T. & Saye, J. (2001). The use of Embedded Scaffolds with Hypermedia supported student-centered learning. *Journal of Educational Multimedia and Hypermedia 10.* 333-356.

Bybee, R. W. (1997). Achieving Scientific Lit*eracy.* Portsmouth, N.H, Heinemann in BSCS (2006). *BSCS Science: An Inquiry Approach.* Dubuque, IA: Kendall/Hunt Publishing Company.

Cakici, Y. & Yavuz, G. (2010). The Effect of Constructivist Science Teaching on 4th Grade Students' Understanding of Matter. Asia-Pacific Forum on *Science Learning and Teaching, 11(2),* Article 13. Retrieved from ERIC Journal (EJ933461).

Cakir & Mustafa (2008). Constructivist Approaches to Learning in Science and Their Implications for Science Pedagogy: A Literature Review. *International Journal of Environmental and Science Education, 3(4),* 193-206. Retrieved from ERIC Journal (EJ894860).

Cakir & Perit. M. (2009). How online groups co-construct mathematical artifacts to do collaborative problem solving. *The Dissertation Abstracts International, 70(9),* 249, 3236-A, Drexel University.

Campoy, R. (1992). The role of technology in the school reform movement. *Educational Technology, 32,* 17-22.

Carnevale, A. P. (1991). America and the new economy Research Report. ERIC document reproduction service number (CE058361). In Mandel, S.M. (1993). *Co-operative work groups. Preparing students for real world.* Thousands Oaks, CA: Corwin press. Inc.

Carnevale, A. P. (1996). Liberal Education and new economy, Liberal Education, 82 (2). 4-11. In Mandel S.M. (1993). *Co-operative work groups. Preparing students for real world.* Thousands Oaks, CA: Corwin press. Inc.

Carnevale, A. P. (2002). Preparing for the future, American School Board Journal. 189 (7), 26-29, 47. In Mandel, S.M. (1993). *Co-operative work groups. Preparing students for real world.* Thousands Oaks, CA: Corwin press. Inc.

Carnevale, A. P., Gainer, L. J. & Meltzer, A. S. (1990). Workplace basics: the essential skills employers want. Sanfrasisco: Jossy-Bass. In Mandel S.M. (1993). *Co-operative work groups. Preparing students for real world.* Thousands Oaks, CA: Corwin press. Inc.

Carnevale, A. P. & Porro, J. D. (1994). Quality Education: School reforms for the new American Economy. Position Paper. ERIC Document Reproduction service No. (CE065765). In Mandel, S.M. (1993). *Co-operative work groups. Preparing students for real world.* Thousands Oaks, CA: Corwin press. Inc.

Carolyn & Gerbo (2004). Students' views on Classroom management strategies in assertive discipline and Constructivist classroom settings. *The Dissertation Abstracts International*, 65(12), 244, 4445-A, University of Northern Iowa.

Cawthron, E. R. & Rowell, J. A. (1978). Epistemology and Science Education. *Studies in Science Education, 5*, 31–59.

Chai, C. S., Teo, T. & Lee, C. B. (2009). The Change in Epistemological Beliefs and Beliefs about Teaching and Learning: A Study among Pre-Service Teachers. *Asia-Pacific Journal of Teacher Education, 37(4)*, 351-362. Retrieved from ERIC Journal (EJ861201).

Clark, R. E. (1983). Reconsidering research on learning from media. *Review of Educational Research, 53(4)*, 445–449.

Clark, R. E. (1994). Media will never influence learning. *Educational Technology, Research & Development, 42(2)*, 21-29.

Cole, M. (1991). *Cultural Psychology*. Cambridge: Harvard University Press.

Cubukcu, Z. (2008). Preferences on Internet Based Learning Environments in Student-Centered Education. *Turkish Online Journal of Distance Education, 9(4)*, 154-174. Retrieved from ERIC Journal (EJ816488).

Dash, B. N. (2004). *Teacher and Education in the Emerging Indian Society* Hyderabad: Neelkamal Publications Pvt Ltd.

Davidson, A. (1995). Constructivism and Computer-mediated Communication in Distance Education. *The American Journal of Distance Education, 9(2)*, 7-26.

Dethlefs & Marie (2002). Relationship of Constructivist learning environment to student's attitudes and achievement in high school Mathematics and Science. *The Dissertation Abstracts International, 63(7)*, 216, 2455-A, University of Nebraska.

Dewey, J. (1916). *Democracy and Education*. New York: Macmillan, Inc.

Driver, R. & Oldham, V. (1986). A Constructivist Approach to curriculum development in Science. *Studies in Science Education, 13*, 105-122.

Duckworth, E. (1979). Either we're too early and they can't learn it or we're too late and they know it already: The dilemma of 'applying Piaget'. *Harvard Educational Review, 49*, 297–312.

Duffy, T. M. & Cunningham, D. J. (1996). Constructivism: Implications for the design and delivery of instruction. In D. H. Jonassen (Ed.). *Educational Communications and Technology*, 170-199. New York: Simon & Schuster Macmillan.

Duffy. M. & Barowy. W. (1995). *Effects of Constructivist and Computer-Facilitated Strategies on Achievement in Heterogeneous Secondary Biology* Retrieved from ERIC database. (ED406207).

Earl, L. & Katz, S. (2002). Leading schools in a data rich world, In Hallinger, L.P., Furman G. C., Gronn, P. & Riley K. (Eds). The second International handbook of educational leadership and administration. Dordecht, The Netherlands: Kluwer.

Education Commission Report (1964-66). New Delhi: Govt. of India.

Eggen, P. & Kauchak, D. (2004). *Educational Psychology: Windows on classrooms* (6thedn.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

Eischen, D. D. (2009). Its' in the stories: The power Narrative knowing in the evaluation of students' internship experience. *The Dissertation Abstracts International, 70(11)*, 264, 4236 A. Syracuse University.

Eisenkraft, A. (2003). Expanding the 5E Model. "*The Science Teacher*" *70(6)*, 57-59. National Science Teacher Association (NSTA), Arlington, VA.

Ekaterina & Koubek (2002).Constructivism and online professional development: A study of the beliefs and practices of four foreign language teachers. *The Dissertation Abstracts International, 63(7)*, 343, 2509-A, University of Nabraska.

Enger, S.K. & Yager, R.E. (2009). *Assessing student understanding in Science* (2nd edn.) Thousands Oaks, CA: Corwin press.

Ernest, P. (1995). The one and the many. In Steffe, L. & Gale, J. (Eds). *Constructivism in Education*, 459-486. Erlbaum, Hillsdale, NJ.

Fahriye, A. A., Zehra, A. G. & Aytekin, I. (2008). A Comprehensive Look into the Learners' Transferable Skills Related to Constructivist Approach. *World Applied Sciences Journal, 4 (4)*. 558-567

Falk, J. H. & Dierking, L. D. (2000). *Learning from Museums*. Walnut Creek USA: AltaMira Press.

Feroz, A. & Garg, S. (2007). *Forty Years of Kothari Commission: Reforms & Reflections*. New Delhi: Viva Books Publication Pvt. Ltd.

Fitzpatrick F. (1960). *Policies for Science Education.* New York: Bureau of Publications, Teachers College, Columbia University.

Fosnot, C. T. (1989). Constructivism: A Psychological theory of learning. In C. Fosnot (Ed.) *Constructivism: Theory, Perspectives and Practice*. 8-33. New York: Teachers College Press.

Fosnot, C. T. (1996). Preface. In C. T. Fosnot (Ed.) *Constructivism: Theory, Perspectives and Practice*, 9. New York: Teachers College Press.

Franke, G. & Bogner, F. X. (2011). Cognitive Influences of Students' Alternative Conceptions within a Hands-On Gene Technology Module. *Journal of Educational Research, 104(3)*, 158-170. Retrieved from ERIC Journal (EJ920156).

Frand, J. (2000). The information-age mindset: Changes in students and implications for higher education. *Educause Review, 35*(5), 14-24.

Fullan, M. G. (1992). *Breakthrough. A multimedia Kit for the Professional Development* Phidalphia: Open University Press.

Gaensler & Edwina, I. (2004). *A study of Social Constructivist learning in a WebCT-based precalculus course*. Georgia State University, ProQuest, UMI Dissertations Publishing. 3132888.

Galting & Pfitzner (2010). Investigating the impact of field versus university based Science methods on pre-service teachers' beliefs and abilities to design inquiry based Science instruction for diverse learners. *The Dissertation Abstracts International, 71(4)*, 1190 A.

Gibson, H. L. (2000). *The impact of Instructional Methods on Pre-Service teachers' attitude towards teaching and learning*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Giddings, G. (1993). Students Instruction & Motivation Survey. Curtin University, Perth, West Australia. In Enger, S.K. & Yager, R.E. (2009). *Assessing student understanding in Science* (2nd edn.) Thousands Oaks, CA: Corwin press.

Glassman, M., Bartholomew, M. & Hur, E.H. (2013). The Importance of the second loop in Educational Technology: An Action Science study of introducing blogging in a course curriculum. *'Action Research'. 11(4)*, 337-353. London: Sage Publications.

Glassman, M. & Kang, M. (2011). The logic of wikis: The possibilities of the web 2.0 classroom. *International Journal of Computer Supported collaborative learning. 6*, 93-112.

Goel, D. R. (2000). *Educational Media in India*. Delhi: Bharatiya Kala Prakashan.

Goel, D. R. & Goel, C. (2012). Teacher Education Scenario In India: Current Problems & Concerns, *MIER Journal of Educational Studies, Trends & Practices. 2(2)*, 231-242.

Goldstein & Marion (2009). Developing dialogic argumentation skills via scaffolding instant messaging *The Dissertation Abstracts International, 70(7)*, 153, 2474 A, Columbia University.

Goodling, J. & Teres, C. (2009). Comparing the perspections of Scientific inquiry between experts and practiceners. The Dissertation Abstracts International, 70 (11), 231. 4229 –A. Robert Morris University.

Gopal & Tamilselvi (2009). Integration of the BSCS 5E Instructional and Technology in anatomy and physiology laboratory. *The Dissertation Abstracts International, 70(10)*, The University of Southern Mississippi.

Grant, M. M. (2002). Getting a grip on project-based learning: Theory, cases and recommedations. *Meridian: A Middle School Computer Technologies Journal*, 5. (Winter).

Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., Scafiddi, N. T., & Tonks, S. (2004). Increasing reading comprehension & engagement through concept oriented reading instruction. *Journal of Educational Psychology*. 96(3), 403-423.

Hannafin, M. J. & Hill, J. R. (2002). Epistemology and the design of learning environments. In R. A. Reiser, & Dempsey, J. V. (Ed.). *Trends and Issues in Instructional Design and Technology*. New Jersey: Merrill Prentice Hall.

Healy, J. (1998). *Failure to connect: How computers affect our children's mind, for better or worse*. New York: Simon & Schuster.

Hergenhahn, B. R. & Oslon, M. H. (2008). *An Introduction to Theories of learning*. New Delhi: Prentice Hall of India Pvt Ltd.

Herrington, J. & Ron, O. (2000). Educational Technology Research & Development, 48(3), 23-48.

Hewson, P.W. (1981). A conceptual change approach to learning Science. *European Journal of Science Education. 3(4)*, 383–396.

Higgins, D. & Elliott, C. (2011). Learning to Make Sense: What Works in Entrepreneurial Education? *Journal of European Industrial Training, 35(4)*, 345-367. Retrieved from ERIC Journal (EJ924826).

Hodson, D. (1988). Toward a Philosophically more valid Science curriculum. *Science Education, 72*, 19–40.

Holt, D. G. & Willard-Holt, C. (2000). Let's get real – students solving authentic corporate problems. *Phi Delta Kappan, 82 (3)*.

Ingold, C. (2007). Nature, 15th December. In Education & Character building: Collection of Convocation addresses. New Delhi: National Institute of Science Communication. p. 20.

Jacobas, G. M. & Power, M. A. (2002). *The Teachers' Source Book for Cooperative learning. Practical Techniques, Basic Principles and FAQ's*. Thousands Oaks, CA: Corwin press, Inc.

Joblonski & Dennis, L. (2009). Teachers' Pedagogical beliefs and the Instructional use of Technology with middle school students. *The Dissertation Abstracts International, 70(11)*, 126, 4253 A, University of Oregon.

Joldersma & Clarence, W. (2011). Ernst von Glasersfeld's Radical Constructivism and Truth as Disclosure. *Educational Theory, 61(3)*, 275-293. Retrieved from ERIC Journal (EJ932661).

Jonassen, D. (1991). Evaluating Constructivist learning. *Educational Technology, 31*, 28- 33.

Jonassen, D. (1999). Designing Constructivist learning environments. In C. Reigeluth (Ed.), *Instructional design theories and models· A new paradigm of instructional theory 2*, 215-239. Mahwah, NJ: Lawrence Erlbaum Associates.

Jonassen, D. H., Peck, K. L. & Wilson, B. G. (1999). Learning with Technology: A Constructivist Perspective. Upper Saddle River, NJ: Merrill/Prentice Hall.

Jonghwi & Park (2009). Designing a well-framed activity system supported for an ICT-supported Constructivist learning Environment; A CHAT perspective. *The Dissertation Abstracts International, 71(3)*, 173, 942 A. McGill University.

Kelly, G. A. (1991). The Psychology of personal constructs. *A theory of personality. 1.* London: Routledge

Kelly, G. A. (2000). Rethinking the elementary Science method course: a case for content, pedagogy and informal Science Education. *International Journal of Science Education. 22(7)*, 755-777.

Kilpatrick (1987). *What Constructivism might be in Mathematics Education?* In the Proceedings of PME IX, Montreal.

Kim, H. & Hannafin, M. J. (2011). Developing Situated Knowledge about Teaching with Technology via Web-Enhanced Case-Based Activity. *Computers & Education, 1*

Kim & KyongNa (2009). Exploring the Undergraduate students' active learning for enhancing their critical thinking and learning in a large class. *The Dissertation Abstracts International, 70(11)*, 185, 4254 A, The Pennsylvania State University.

Kitzinger, J. & Barbour, R. S. (1999). *'Introduction: the challenge and promise of focus group groups'*. In R. S. Barbour & J. Kitzinger (eds). *Developing Focus Group Research· Politics, Theory and Practice.* London: Sage Publications.

Kotzee, B. (2010). Seven Posers in the Constructivist Classroom. *London Review of Education,* 8(2), 177-187. Retrieved from ERIC Journal (EJ892731).

Kozma, R. B. (1994). Will media influence learning? Reframing the debate. *Educational Technology Research and Development, 42(2),* 7–19.

Kroll L. R. (2004). Constructing Constructivism: how student- teachers construct ideas of development, knowledge, learning and teaching. *Teachers and Teaching-Theory and Practice. 10(2),* 199-221 Mills College, Oakland, CA, USA.

Kuhn, T. S. (1962). *The structure of scientific revolutions* (1st edn.). Chicago: Chicago University Press.

Kuhn. T. S. (1970). *The Structure of Scientific Revolutions.* Chicago, University of Chicago.

Kuhn, T. S. (2000). On learning Physics. *Science and Education,* 9(1/2), 11–19.

Kulik, C. L. C. & Kulik, J. A. (1991). Effectiveness of computer-based instruction: An update analysis. *Computers in Human Behavior,* 7(1–2), 75–94.

Lambert, N. & McCombs, B. L. (Eds.) (1998). *How students learn· Reforming schools through learner-centered education.* Washington, DC: APA Books.

Lawson & Jennifer (2008). Ann Examination of cooperative inquiry as a professional learning strategy for inner city principals. *The Dissertation Abstracts International, 70(8),* 212, 2827-A, University of Manitoba.

Lead Teachers in the Iowa Chautauqua Programme (2008), University of Iowa, Iowa. In In Enger, S.K. & Yager, R.E. (2009). *Assessing student understanding in Science* (2nd edn.) Thousands Oaks, CA: Corwin press.

LeBaron, J. F. & Bragg, C. A. (1994). Practicing what we preach: creating Distance Education models to prepare teachers for the twenty-first century. *American Journal of Distance Education, 8,* 5-19.

Lerman (1989). Constructivism, Mathematics and Mathematics Education. Education studies in Mathematics, *20*, 211-223.

Lorengan, B. (1967). Insight: *A study of Human Understanding*. Edited by Frederick E. Crowe and Robert M. Doran, CWL 3. Toronto: University of Toronto Press.

Lord, T. R. (1997). A Comparison between Traditional and Constructivist Teaching in College Biology. *Innovative Higher Education*, 21(3), 197-216. Retrieved from ERIC Journal (EJ541280).

Lorsbach A. & Tobin. K. (1992). Constructivism as a Referent for Science Teaching, *NARST Newsletter, 30*, 5-7.

Lourdusamy, Wong, P., Koon, S. & MyintSweKhine (2001, December). *A program on creating Constructivist Learning Environment using ICT to teach concepts skills in classroom management at National Institute of Education, Singapore,* Paper presented at the International Research Conference, University of Notre Dame, Fremantle, Western Australia.

Lutonsky & Rose, R. (2009). Pre-service and In-service training, gender and years of teaching experience; Influence on teachers basic technology competencies. *The Dissertation Abstracts International, 70(11)*, 241, 4255-A, University of Albama.

MacNaughton and Williams (2004). *Teaching Young Children*, Maidenhead: Open University Press.

Mangal, S. K. & Mangal, U. (2009). *Essentials of Educational Technology*. New Delhi: PHI learning Pvt Ltd.

Mann, C. (1994). New technologies and gifted education. *Roeper Review, 16*, 172-176.

Maor, D. C. (1999). A Teacher professional Development program on using a Constructivist Multimedia learning environment. *Learning Environment Research*. 2(3), 307-330, Retrieved from ERIC Database (ED613346).

Marchand, H. (2012). Contributions of Piagetian and Post-Piagetian theories to education. *Educational Research Review, 12*, 165–176. Retrieved from www.elsevier.com/ locate/EDUREV

Martha & Casa. (2006). University of Texas, Implementing Constructivist Web-Based Learning and Determining its Effectiveness on a Teacher Preparation Course. *The Journal of Educators Online, 3(2).*

Marti, E. (1996). Piaget and school education: A socio-cultural challenge. *Prospects, 16(1),* 141–158.

Matthews, M. R. (1992). Tomas Kuhn's Impact on Science Education: What Lessons Can Be Learned? *Issues and Trends,* Wiley Periodicals, Inc. *Sci Ed* 88, 90 – 118, 2004; Published online in Wiley Inter Science (www.interScience.wiley.com). DOI 10.2002/sce.10111.

Matthews, M. R. (1992a). Constructivism and the empiricist legacy. In M. K. Pearsall (Ed.), *Scope, sequence and coordination of secondary school Science: Relevant Research* (pp.183–196).Washington, DC: National Science Teachers Association.

Matthews, M. R. (1992b). Old wine in new bottles: A problem with Constructivist Epistemology. In H. Alexander (Ed.), *Philosophy of Education* (1992), Proceedings of the forty-eighth annual meeting of the Philosophy of Education Society (pp. 303–311). Urbana, IL: Philosophy of Education Society.

Matthews, M. R. (1994). *Science Teaching: The role of History and Philosophy of Science.* New York: Routledge.

Matthews, M.R. (1997). Introductory Comments on Philosophy and Constructivism in Science Education. *Science and Education 6,* 5-14.

Matthews, M. R. (2000a). Constructivism in Science and Mathematics Education. In. Phillips, D. C (Ed.). *National Society for the Study of Education* 99th Yearbook (pp. 161–192). Chicago: National Society for the Study of Education.

McCombs, B. L. & Miller, L (2007) *Learner centered classroom practices and assessments. Maximizing student motivation, learning, and achievement.* Thousand Oaks, CA: Corwin Press.

McDavitt & David, S. (1995). *Teaching for Understanding: Attaining Higher Order Learning and Increased Achievement through Experiential Instruction.* Retrieved form ERIC database (ED374093).

McWilliams, S. A. (2010). Inherent Self, Invented Self, Empty Self: Constructivism, Buddhism, and Psychotherapy. *Counseling and Values, 55(1)*, 79-100. Retrieved from ERIC Journal (EJ900486).

Meadows, S. (1993). *The Child as Thinker*. London : Routledge

Meyer, D. L. (2009). The Poverty of Constructivism. *Educational Philosophy and Theory,* 41(3).

Mohanty, J. (1984). *Educational broadcasting· radio and television in education*. New Delhi: Sterling.

Murthy. M. R. (2005). *Psychology of Learning*. Jaipur: Aavishkar Publishers.

Nath, B. K. & Sajitha, P. S. (2010). *Psychological Approaches to Learner Centered Curriculum in Kerala*. Retrived from ERIC Database (ED513964).

NCERT (1968). General Science Handbook of Activities for Classes VI-VIII. New Delhi: National Council of Educational Research and Training.

NCERT (2000). *National Curriculum Framework*. New Delhi: National Council of Educational Research and Training.

NCERT (2000). *National Focus Group on Educational Technology*. New Delhi: National Council of Educational Research and Training.

NCERT (2000). *National Curriculum Framework for School Education*. New Delhi: National Council of Educational Research and Training.

NCERT (2005). *National Curriculum Framework* New Delhi: National Council of Educational Research and Training.

NCERT (2005). *National Curriculum Framework for School Education*. New Delhi: National Council of Educational Research and Training.

NCERT (2005). *The National Curriculum Framework for School Education.* New Delhi: National Council of Educational Research and Training.

NCERT (2006). *Position Paper, National Focus Group on Teaching of Science.* New Delhi: National Council of Educational Research and Training.

NCERT (2009). *Curriculum Framework for Quality Teacher Education.* New Delhi: National Council for Teacher Education.

NCTE (2009). *National Curriculum Framework for Teacher Education Towards Preparing Professional and Humane Teacher* New Delhi: National council For Teacher Education.

NCTE (1988). National Curriculum for Teacher Education. New Delhi: National Council for Teacher Education.

NCTE (1998). National Curriculum Framework for Teacher Education-A Framework, New Delhi: National Council of Teacher Education.

NKC (2007). *Recommendations on School Education.* National Knowledge Commission Government of India.

NKC (2008). *Recommendations. More Talented students in Math and Science.* National Knowledge Commission. Government of India.

National Policy on ICT in School Education (2012). Department of School Education and Literacy. Ministry of Human Resource Development. Government of India.

Nehru, J. (1958). In Forty years of Kothari Commission, reforms and reflections. In Feroz, A. & Garg, S. (2007) *In Forty years of Kothari Commission, reforms and reflections*. New Delhi: Viva books Pvt Ltd.

Ng, W. K. (2002). *ICT dan Pengajaran*. Penang: Penerbit Universiti Sains Malaysia.

Ng, W. K. & Kong, S. L. (2002). ICT and Constructivist Strategies Instruction for Science And Mathematics Education. *Journal of Science and Mathematics Education in S E. Asia. 28 (1).*

Novak, J. D. (1964). Importance of conceptual schemes for Science teaching. *The Science Teacher*, 31 (6), 10.

Olsen, F. (2000). The wireless revolution. *The chronicle of higher education, 47(7)*, 7-11.

O'Connell & Francis, J. (2009). A model for assessing the effectiveness of professional development for improving student learning. *The Dissertation abstracts International, 70 (7)*, 2369-A Iowa state University.

Osborne, R. J. & Wittrock, M. C. (1983). Learning Science: A generative process. *Science Education, 67(4)*, 489-508.

Papert, S. (1980). Computer-based microworlds as incuboators for powerful ıdeas. In Taylor, R. (Ed.). *The Computer in the School· Tutor, Tool, Tutee* (pp. 203-210). New York, NY: Teachers College.

Papert, S. (1983). *The Children's Machıne: Rethinking school in the age of the Computer.* New York: Basic Books.

Papert, S. (1900). Introduction. In Idit Harel (Ed.) *Constructivist Learning.* Boston: MIT.

Paulson, D. R. (1999). Actıve Learning and Cooperative Learning in the Organic Chemistry Lecture Class. *Journal of Chemical Educatıon, 76(8)*, 1136-1140.

Pedersen, S. & Liu, M. (2003). Teachers beliefs about issues in implementation of student-centered learning environment: Educational Technology Research and Development, 51 (2), 57-76. In Gillis, R. M. (2007), *Co-operative learning.* Thousands Oaks, CA: Sage Publications.

Penn, H. V. (2005). *Understanding Early Childhood.* Maidenhead: Open University Press.

Pepin, Y. (1998). Practical Knowledge and School Knowledge: A Constructivist representation of Education. In Larochelle, M., Bednarz, N. & Garrision, J. (Eds.). *Constructivısm and Education* (pp.173–192). Cambridge, UK: Cambridge University Press.

Petras & Carol-Lynn, M. (2010). A descriptive study of Science and Maths teachers Pedagogy, ICT use and perceptions of how ICT impacts their teaching. The *Dissertation Abstracts Internatıonal 71(6)*, Pepperdine University.

Phillips, D. C. (1997). Coming to grips with Radical Social Constructivism, *Science and Education, 6*, 85-104.

Piaget, J. (1926). *The language and Thought of the Child.* New York: Routledge&Kegan Paul Limited.

Piaget, J. (1950). *The Psychology of Intelligence.* London: Routledge and Kegan.

Piaget, J. & Barbel (1958). *The growth of Logical Thinking*. New York: Basic Books Inc.

Piaget, J. (1961). *Les Mechanismes Perceptifs*. Paris: Presses Universitaires de France.

Piaget, J. (1970). Piaget's theory. In Mussen, P. H. (Ed) *Carmichael's manual of child psychology* (1, 3rd ed., pp. 703-732). New York: Wiley

Piaget, J. (1973). *To Understand is to Invent*, New York: Crossman.

Piaget, J. (1975). *L'Equilibration des structures cognitives*. Paris: Presses Universitaires de France.

Poplin, M. (1988b). Holistic/Constructivist principles of the teaching/learning process: implications for the field of Learning Disabilities. *Journal of Learning Disabilities, 21*, 410-416.

Raban, B., Ure, C. & Waniganananayake, M. (2003). Multiple Perspectives: Acknowledging the Virtue of Complexity in Measuring Quality, *Early Years, 23(1)*, 67-77.

Ramkumar, N. (2003). *Acquisition of Process Skills by IV Std. pupils through an Instructional programme in Environmental Studies*. An Unpublished Ph.D. Thesis, The M. S. University of Baroda. Vadodara.

Rasmussen, B. (2010). The "Good Enough" Drama: Reinterpreting Constructivist Aesthetics and Epistemology in Drama Education. *Research in Drama Education, 15(4),* 529-546. Retrieved from ERIC Journal (EJ904222).

Reeves, T.C. (1993a). *Evaluative Interactive Multimedia*. In D.M. Gayeski (Ed), *Multimedia for learning: Development, application, evaluation* (97-112), Eaglewood Cliffs, NJ: Educational Technology Publications.

Reiser, R. A. (2002). A History of Instructional Design andT. In. Reiser, R. A. & Dempsey, J. V. (Ed.), *Trends and Issues in Instructional Design and Technology*. NJ: Merrill Prentice Hall.

Renner, J. W. (1986). Rediscovering the Lab. *The Science Teacher* (January): 44-45.

Richardson, J., Williamson S. & Stotler D. (1968). *The Education of Science Teachers*. Colombes: Charles E. Merill Publishing Company.

Robson, S. (2006). *Developing Thinking and Understanding in Young Children: An Introduction for Students.* London: Taylor & Francis.

Rogers, G. (2011). Learning-to-Learn and Learning-to-Teach: The Impact of Disciplinary Subject Study on Student-Teachers' Professional Identity. *Journal of Curriculum Studies, 43(2),* 249-268. Retrieved from ERIC Journal (EJ922174).

Rukavina, P. B. & Jeansonne, J. J. (2009). Integrating Motor-Learning Concepts into Physical Education: Using Guided Discovery to Address NASPE Standard 2. *Journal of Physical Education, Recreation & Dance (JOPERD), 80(9),* 23-30, 65. Retrieved from ERIC Journal (EJ867694).

Sabdra A. & Boohan R. (2002). *Teaching Science in Secondary Schools A Reader.* London: Routledge Falmer.

Sahlstrom, F. & Lindblad, S. (1998). Subtexts in the Science Classroom--An Exploration of the Social Construction of Science Lessons and School Careers. *Learning and Instruction,* 8(3), 195-214. Retrieved from ERIC Journal (EJ572800).

Schunk, D. H. (2000). *Learning Theories: An Educational Perspective.* New Jersey: Prentice-Hall.

Segall, A. (2001). Re-thinking theory and practice in the pre-service teacher education in the classroom: teaching to learn from learning to teach. *Teaching Education, 12(2),* 225-242.

Semper, R. J. (1990). 'Science museums s environments for learning', Physics Today. 90 (11), 50-6. In Sabdra A. & Boohan R. (2002). *Teaching Science in Secondary Schools A Reader.* London: Routledge Falmer.

Senapathy, H. K (2004, January). *Integrating Digital Technology into Constructivist Learning Environment.* Paper presented at 17th Annual Conference of All India Association for Educational Research, Sourastra University, Rajkot.

Senapathy, H. K. (2009). Instructional Role of Information and Technology in Constructivistic Learning Environment. *Gyan, The Journal of Education,* 5(20), 10-20.

Siddiqui, M.A. (2009). University Education Commission (1948-49) this report is alive in its relevance today. In Preface of *National Curriculum Framework for Teacher Education.* New Delhi: National Council for Teacher Education.

Sigel, I. (1978). "Constructivism and Teacher Education." *The Elementary School Journal* 78, 5.

Siegler, R. S. (1998). *Children's Thinking* (3rd edn.). Upper Saddle Ridge, NJ: Prentice Hall.

Siegler, R. S. (2000). "The Rebirth of Children's Learning", *Child Development*, 71 (1), 26-35.

Siegler, R., DeLoache, J. & Eisenberg, N. (2003). *How Children Develop*, New York: Worth.

Smeets, L. & Mooji, T. (2001). Pupil-Centerd Learning, ICT and Teacher Behavior: Observations in educational practice. *British Journal of Educational Technology, 31*, 403-417.

Smith, A., Smith, P.K., Cowie, H. & Blades, M. (2003). *Understanding Children's Development (*2nd edn.). Oxford: Blackwell.

Sofie M. M., Loyens, R., Rikers, M. J. P. & Henk, G. S. (2009). Students' conceptions of constructivist learning environments. *British Journal of Educational Psychology, 79*, 501-514. The British Psychological Society.

Soloman, G. (1999). Collaborative learning with Technology. *Technology and Learning, 19(5)*, 51-53.

Solso, R. L. (2001). *Piaget's Theory. Cognitive psychology* (6th edn.). Singapore: Pearson Education.

Sounders & Soundra, M. (2009). Science teachers' perception of implementing constructivist principles into instruction. *The Dissertation Abstracts International, 70 (7)*, 100, 2443-A, Capella University.

Sridevi, K. V. (2008). *Constructivism in Science Education.* New Delhi: Discovery Publishing House Pvt. Ltd.

Staver, J. (1998). Constructivism: Sound theory for explicating the practice of Science and Science teaching. *Journal of Research in Science Teaching, 35 (5)*, 501–520.

Steffe, L. P. and Gale, J. (1995). *Constructivism in Education*. Hillsdale, NJ: Lawrence Erlbaum.

Strommen, E. F. & Lincoln, B. (1992). Constructivism, Technology, and the future of classroom learning. *Education and Urban Society, 24*, 466-476.

Sullivan, J.W.N (1963). Science, *the Columbia Encyclopedia* (3rd edn.), P.1990.

Sullivan, M. & Gervasioni (2000) Caution: Classroom under observation, *Asia-Pacific Journal of Teacher Education. 28(3)*, 247-261.

Sutherlend, P. (1992). Cognitive Development Today: Piaget and his Critics, London: Paul Chapman.

Tanase, M. & Wang, J. (2010). Initial Epistemological beliefs Transformation in one Teacher Education Classroom: Case Study of Four Pre-service Teachers. *Teaching and Teacher Education: An International Journal of Research and Studies*, 26 (6), 1238-1248. Retrieved from ERIC Journal (EJ886704).

Taylor, P.C., Fraser, B. J. & White, L.R. (1994). A Classroom Environment questionnaire for Science Educators interested in the Constructivist reforms of School Science. Paper Presented at annual meeting at the National Association for Research in Science Teaching, Anaheim, CA.

Thornton, C. (2002). Indirect sensing through abstractive learning. *Intelligent Data Analysis 7(3)*, 1–16.

Tinio, V. L. (2007). *ICT in Education*. UN Development Programme. Retrieved from http:www.eprmers.org

Tobias, S. (1991), An eclectic examination of some issues in the Constructivist-ISD controversy. *Educational Technology, 31*, 42-43.

Treadwell & Wilson, J. (2010). The Impact of discovery learning in writing instructional on fifth grade students' achievement. *The Dissertation Abstracts International, 71(3)*, 190, 837 A, Walden University.

Tremblay, E. (2010). Educating the Mobile Generation – using personal cell phones as audience response systems in post-secondary Science teaching. *Journal of Computers in Mathematics and Science Teaching, 29*(2), 217-227. Chesapeake, VA: AACE. Retrieved from http://www.editlib.org/p/32314.

Tsai, C. C. & Lee, M. H. (2005). Exploring High School students' and teachers' preferences toward the Constructivist Internet based learning environments in Taiwan. *Educational Studies, 31(2).* Taylor and Francis. DOI: 10.1080/03055690500095522.

Tyler, R. W. (1949). Basic Principles of curriculum and Instruction. Chicago: University of Chicago Press.

Umasree, P.S. (1999). *Science Curriculum and its Transaction: An Exploratory Study in the Secondary Schools of Baroda, Gujarat.* An Unpublished Ph.D. Thesis, The M.S. University of Baroda. Vadodara.

UNESCO (1998). Teacher and Teaching in the Changing World. *World Education Report* Paris: UNESCO.

Vhurumuku, E. (2011). High School Chemistry Students' Scientific Epistemologies and Perceptions of the Nature of Laboratory Inquiry. Chemistry Education Research and Practice, 12 (1), 47-56. Retrieved from ERIC Journal (EJ923485).

Von Glasersfeld, E. (1987). Learning as a Constructive activity. In Janvier, C. *Problems of representation in the teaching and learning of mathematics*, 3-17. New Jersey: Lawrence Erlbaum Associates, Inc.

Von Glasersfeld, E. (1996). Footnotes to "The Many Faces of Constructivism". *Educational Researcher, 25(6)*, 19-20.

Vygotsky, L. (1978). *Mind in Society.* Cambridge, MA: Harvard University Press.

Weersing, K., Padilla, G. J. & Bruno, B. (2010). What Microbe Are You!. *Science Teacher,* 77(6), 40-44. Retrieved from ERIC Journal (EJ898363).

Wells, G. (1987). *The Meaning Makers*, Sevenoaks: Hodder and Stougnton.

Wertsch, J. V. (1997). *Vygotsky and the Social formation of mind.* Cambridge, MA: Harvard University Press.

Whitebread, D. (2000 a). 'Teaching Children to Think, Reason, Solve problems and Be Creative'. In the Psychology of Teaching and Learning in the Primary School (ed.). pp. 140-64. London: Routledge Falmer

Williamson & William, D. (2010). Assessing constructivist elements in the online learning environment. *The Dissertation Abstracts International, 71(5)*, 115, 1560-P. The University of North Carolina.

Wood & Wood (1996). 'Vygotsky, Tutoring and Learning'. *Oxford Review of Education, 22(1)*, 5-16.

Yager, R. E. (1991). The Constructivist Learning Model towards Real Reform in Science Education. *Science Teacher, 58*, 52-57.

Yager, R. E. (2000). The Constructivist Learning Model. *Science Teacher.* 67(1), 44-45. Retrieved from ERIC journal (EJ617001).

Yager, R. E. & Akcay, H. (2010). *The Advantages of an Inquiry Approach for Science Instruction in Middle Grades School Science and Mathematics, 110 (1)*, 5-12. Retrieved from ERIC Journal (EJ915531).

Yash Pal Committee Report (1993). *Learning Without Burden.* Report of the National Advisory Committee. New Delhi: Department of Education, Ministry of Human Resource Development. Government of India.

Yilmaz, H. & Sahin, S. (2011). Pre-Service Teachers' Epistemological beliefs and Conceptions of Teaching *Australian Journal of Teacher Education, 36(1)*, 73-88. Retrieved from ERIC Journal (EJ920014).

Young, R. M. (1987). 'Racist Society, Racist Science'. In Gill D. & Levidow L. (eds) *Anti-racist Science teaching.* London: Free Association Books.