Inquiry learning



controlled experimentan experiment that tests only one factor at a time by using a comparison of a control group with an experimental groupindependent variable variable that is changed in an experiment ONINQUIRY LEARNING SPECIFICALLY FOR YOUFOR ONLY\$13. 90/PAGEOrder Nowobservationuse of the senses to gather and record information about structures or processes in naturedatarecorded observations or items of informationinferencelogical conclusion based on observationsgeneralizationgeneral conclusionhypothesissuggested, testable answer to a well-defined scientific question variableany factor in an experiment that is not constant (any factor that can change)evidencecollected body of data from observations and experiments theory well-tested explanation that makes sense of a great variety of scientific observations dependent variable the variable that is measured in an experiment qualitative data Information describing color, odor, shape, or some other physical characteristic quantitative datanumerical information describing how much, how little, how big, how tall, how fast, etc. inquiry learningapproach in which the teacher presents a puzzling situation and students solve the problem by gathering data and testing their conclusionsproblem based learningmethods that provide students with realistic problems that don't necessarily have " right" answersGOALS of problem based learningto enhance intrinsic motivation and skills in problem solving, collaboration, evidence based decision making, and self directed lifelong learningTEACHER's role in problem based learningPHASE 1 = orientstudents to the problem: goes over the objective of the lesson, describes important requirement, motivates students. PHASE 2 = organize student for study: helps students define and organize study tasks related to the

problem. PHASE 3 = assist independent and group investigation: encourages to gather appropriate information, conduct experiments, search for explanation and solutions. PHASE 4 = develop and present artifacts and exhibits: assists in planning and preparing reports, videos, and models to help them share their work with others. PHASE 5 = analyze and evaluate the problem solving process: teacher helps students to reflect on their investigations and the process they used, anchored instructiona type of problem based learning that uses a complex, interesting situation as an anchor for learningcooperationway of working with others to attain a shared goalcooperative learningsituations where elaboration, interpretation, explanation, and argumentation are integral to the activity of the group and where learning is supported by other individualshighly structured tasksinclude work that have specific answers-drill and practice, applying routines and procedures, answering questions from readings, computations in mathematicsIII-structured complex taskshave multiple answers and unclear procedures, requiring problem finding and higher-order thinking, require all the resources of all the group members to accomplishsocial skills and communication taskswhen the goal of peer learning is enhanced social skills or increased intergroup of understanding and appreciation of diversity, the assignment of specific roles and functions within the group might support communicationlearning stylesThe different ways people process information., Preferred methods of absorbing and processing informationBlooms taxonomyA Hierarchical arrangement of cognitive abilitiesscaffolding learning" Scaffolding refers to providing contextual supports for meaning through the use of simplified language, teacher modeling, visuals and graphics, cooperative learning and hands-on learning"

(Ovando, Collier, & Combs, 2003, p. 345). common corestandards that provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them; they are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers, accelerated learningan intensive method of study employing techniques that enable material to be learned in a relatively short time. A program of learning that allows certain students to progress more rapidly than others., A total system for speeding and enhancing both the design process and the learning processes, based on the latest brain researchCritical thinkingfocused, organized thinking about such things as the logical relationships among ideas, the soundness of evidence, and the differences between fact and opinionguided practicethe teacher guides and assists students as they learn how and when to apply the strategy, practice done with frequent and immediate teacher assistanceanticipatory setA brief activity or event at the beginning of the lesson that effectively engages all students' attention and focuses their thoughts on the learning objectives. meta cognitive knowledgeform of knowledge; awareness of what you understand & what you don't (taught by experience); " comprehensive monitoring" tells you if you understand a topic vs. slow down & rereadEquityfairnessdifferentiated lessonsframework or philosophy for effective teaching that involves providing students with different avenues to acquiring content; to processing, constructing, or making sense of ideas; and to developing teaching materials and assessment measures so that all students within a classroom can learn effectively, regardless of differences in abilitycompacting curriculumIdentifying aspects of the content that the

student has already mastered and provide instruction only on the content that the student has not yet mastered, cooperative learningApproach to instruction in which students work with a small group of peers to achieve a common goal and help one another learn, professional learning communityA defined group of educational stakeholders brought together to enable teachers and others to collaborate in support of reflective practice action research and ongoing professional developmentTier 1High quality, effective instruction designed to engage and challenge all students in the general education classroomcueingsetting event and providing the contextRTIResponse To Intervention; A systematic educational decisionmaking process, Goal: to ID those who need support early; Need universal screening, progress monitoring, and instructional decision-makingtier 35-10% of students. Individual students who perform at low levels in otherwise affective classrooms, need inensive intervention. Formative evaluation, First time to consider for SPEDInclusionan approach to educating children with special needs in which they are included in regular classrooms, with " appropriate aids and services", as required by lawteam teaching agroup of two or more teachers working together to plan, conduct and evaluate the learning activities for a shared group of learners., teachers share responsibilities equallyIEP-The Individual Education Plan developed for each child eligible for special education, based on the child's unique needs, with parent participation, containing a statement of the child's present level of performance, educational needs, goals and measurable objectives. Is reviewed at least annually. curriculumcourse of study, specific course of study in a school or collegeengagecarry out or participate in an activityexploreto search for or travel for the purpose of discovery; to

investigate carefullyExplainGive a detailed account of causes, reasons, or mechanisms. Elaborateto add details to, especially in writing or with wordsEvaluateto consider or examine something in order to judge its value, quality, importance, extent, or condition