# EXERCISE: INFLUENCES ON ACHIEVEMENT

The following exercise is based on John Hattie's meta-analysis of more than eight hundred research studies involving over 240 million students.

**OBJECTIVE**

The purpose of the exercise is to increase the network participants' knowledge of research in their profession, to challenge the participants' assumptions about effective practice, and to stimulate network interest in the study of factors that affect student achievement.

**BACKGOUND**

Objective data and research are strategic partners to improved learning—facilitators should plan network sessions with relevant professional development segments connected to the rounds work being done. Knowledge of productive, research-proven teaching and learning practices sharpens the network members' observations and informs their analysis of, and recommendations about, what is seen in classrooms. As Hattie suggests, almost everything teachers do in classrooms helps students learn, but what we want to know is what works best.

**PROCEDURE**

The exercise requires two documents. List 1 shows factors that affect student learning, and List 2 shows the level of impact on student achievement for each factor, as determined by research.

The exercise is conducted as follows:

1. List 1 is distributed to each participant (seated in small groups).
2. The participants individually rate each factor on the list "high," "medium," and "low," according to their own assessment of the level of impact on student achievement for each factor. This is completed privately.
3. List 2 is distributed to the participants, who use it to privately compare the research findings with their own personal assessments recorded on the first document. List 2 groups the factors by high, medium, and low size effects, consistent with research findings.
4. The facilitator asks the participants to discuss the results with each other in small groups, sharing what they find surprising, what might be difficult to understand or accept, and what they may have an interest in pursuing.
5. After a few minutes of small-group discussion, a whole-group discussion is conducted by the facilitator. One way to begin the discussion is to ask each group to share the highlights of its discussion in light of the original questions posed by the facilitator.

Fowler-Finn, Thomas. LEADING INSTRUCTIONAL ROUNDS IN EDUCATION. Cam bridge, Massachusetts: Harvard Educational Press, 2013. pps. 197-201.

| LIST I | | | |
|---|---|---|---|
| **Factors that Affect Student Learning** | **HIGH** | **MEDIUM** | **LOW** |
| Ability Grouping, Tracking, Streaming | | | |
| Classroom discussion | | | |
| Cooperative vs. Individualistic Learning | | | |
| Co-teaching and Team Teaching | | | |
| Direct Instruction | | | |
| Drama and Arts Programs | | | |
| Family Structure | | | |
| Feedback | | | |
| Individualized Instruction | | | |
| Influence of Peers | | | |
| Inquiry-based Teaching | | | |
| Integrated Curricula Programs | | | |
| Matching Teaching with Learning Styles | | | |
| Meta-cognitive Strategies | | | |
| Parental Involvement | | | |
| Personality | | | |
| Phonics Instruction | | | |
| Principals, School Leaders | | | |
| Problem-solving Teaching | | | |
| Providing Formative Evaluation to Teachers | | | |
| Questioning | | | |
| Reciprocal Teaching | | | |
| Reducing Class Size | | | |
| Retention (Holding Back a Year) | | | |
| Self-verbalization and Self-questioning | | | |
| Student-centered Teaching | | | |
| Student Control Over Learning | | | |
| Student Expectations | | | |
| Teacher Clarity | | | |
| Teacher Credibility in Eyes of Students | | | |
| Teacher Expectations | | | |
| Teacher-Student Relationships | | | |
| Teacher Subject Matter Knowledge | | | |
| Vocabulary Programs | | | |
| Web-based Learning | | | |
| Whole Language | | | |

Adapted from John Hattie, VISIBLE LEARNING FOR TEACHERS: MAXIMIZING IMPACT ON LEARNING. London and New York: Routledge , 2012.

| LIST 2 | |
|---|---|
| **HIGH EFFECT SIZE (>0.60)** | |
| Student Expectations | 1.44 |
| Providing Formative Evaluation to Teachers | 0.90 |
| Teacher Credibility in Eyes of students | 0.90 |
| Classroom Discussion | 0.82 |
| Feedback | 0.75 |
| Teacher Clarity | 0.75 |
| Reciprocal Teaching | 0.74 |
| Teacher-student Relationship | 0.72 |
| Meta-cognitive Strategies | 0.69 |
| Vocabulary Programs | 0.67 |
| Self-verbalization and Self-questioning | 0.64 |
| Problem-solving Teaching | 0.61 |
| **MEDIUM EFFECT SIZE (O.30 TO 0.60)** | |
| Cooperative vs. Individualistic Learning | 0.59 |
| Direct Instruction | 0.59 |
| Phonics Instruction | 0.54 |
| Student-centered Teaching | 0.54 |
| Influence of Peers | 0.53 |
| Parental Involvement | 0.49 |
| Questioning | 0.48 |
| Teacher Expectation | 0.43 |
| Integrated Curricula Programs | 0.39 |
| Principals, School Leaders | 0.39 |
| Drama and Arts Programs | 0.35 |
| Inquiry-based Teaching | 0.31 |
| **LOW EFFECT SIZE (<0.30)** | |
| Individualized Instruction | 0.22 |
| Reducing Class Size | 0.21 |
| Co-teaching and Team Teaching | 0.19 |
| Family Structure | 0.18 |
| Personality | 0.18 |
| Web-based Learning | 0.18 |
| Matching Teaching with Learning Styles | 0.17 |
| Ability Grouping, Tracking, Streaming | 0.12 |
| Teacher Subject Matter Knowledge | 0.09 |
| Whole Language | 0.06 |
| Student Control Over Learning | 0.04 |
| Retention (Holding Back a Year) | -0.31 |

Adapted from John Hattie, VISIBLE LEARNING FOR TEACHERS: MAXIMIZING IMPACT ON LEARNING. London and New York: Routledge , 2012.