

# **PENGARUH PENERAPAN MODEL *LEVEL OF INQUIRY* TERHADAP PROFIL KETERAMPILAN DAN DISPOSISI BERPIKIR KRITIS SERTA PENGUASAAN KONSEP SISWA SMA PADA MATERI ALAT OPTIK**

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Kualifikasi kemampuan lulusan mencakup dimensi pengetahuan, sikap kritis dan keterampilan kritis. Dampak negatif seseorang yang tidak memiliki sikap dan keterampilan kritis yakni kegagalan akademik, kehilangan pekerjaan, percobaan bunuh diri dan lain-lain. Oleh sebab itu, penting melatih keterampilan berpikir kritis (KBK), disposisi berpikir kritis (DBK) dan penguasaan konsep peserta didik di sekolah. Namun, ada indikasi KBK, DBK dan penguasaan konsep materi alat optik (PKAO) ini belum terfasilitas secara optimal dalam pembelajaran fisika di sekolah. Sebuah alternatif solusi ditawarkan berupa model pembelajaran yang memfasilitaskan peserta didik untuk melatih KBK, DBK dan PKAO peserta didik yakni model *level of inquiry (LoI)*. Penelitian ini bertujuan untuk menemukan pengaruh penerapan model *LoI* terhadap PKAO, DBK dan KBK peserta didik. Metode *pre-eksperiment* dengan *one group pretest-posttest design* diterapkan pada 30 peserta didik di salah satu sekolah kabupaten Bandung. Keterlaksanaan model *LoI* diukur menggunakan lembar keterlaksanaan model *LoI*. KBK dan PKAO diukur menggunakan pilihan ganda sebagai *pretest* dan *posttest*. DBK diukur menggunakan penilaian DBK saat perlakuan berlangsung dan DBK diri sesudah perlakuan. Pengolahan dan analisis data menggunakan *item response theory (IRT)*. Analisis KBK dan PKAO berdasarkan IRT yang ditunjukkan *test characteristic curve (TCC)* yakni skor parameter-b *posttest* lebih kecil dari *pretest* dan *latent of variabel posttest* lebih besar dari *pretest*. Hal tersebut menandakan bahwa butir soal menjadi lebih mudah atau KBK dan PKAO peserta didik meningkat setelah penerapan model *LoI*. Analisis DBK berdasarkan IRT yang ditunjukkan TCC yakni skor parameter-b penilaian DBK sama dengan DBK diri. Hal tersebut menandakan bahwa skor DBK diri menguatkan skor penilaian DBK. Berdasarkan hasil pengolahan dan analisis, terdapat pengaruh penerapan model *LoI* terhadap KBK, DBK dan PKAO peserta didik.

Kata Kunci: *Level of Inquiry*, Keterampilan Berpikir Kritis, Disposisi Berpikir Kritis, Penguasaan Konsep Alat Optik dan *Item Response Theory*.

# **IMPLEMENTATION EFFECT OF LEVEL OF INQUIRY MODEL ON THE PROFILE OF CRITICAL THINKING SKILLS, MASTERY OF CONCEPT AND CRITICAL THINKING DISPOSITION OF STUDENTS HIGH SCHOOL IN OPTICAL TOOLS MATERIALS**

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Graduate ability qualification are dimension of knowledge, critical disposition and critical skill. Negative effect person who does not have disposition and skill of critical are failure academic, job loss, repeated suicide attempts, etc. Therefore, critical thinking skill (CTS), critical thinking disposition (CTD), mastery of concept is important to trained to students at school. However, there are indications that CTS, CTD and mastery of concepts in optical tools materials (MCOT) is not optimally facilitated in physics learning at school. An alternative solution offers learning model which can optimally facilitate student to trains his CTS, CTD and MCOT is level of inquiry (LoI) model. This study aiming is find CTS, CTD and MCOT of students after application of LoI model. Pre-experiment method with one group pretest-posttest design have been applicated to 30 students in one high school at Bandung Regency. LoI model activity measuring is using LoI model activity sheets. CTS and MCOT measuring is using multiple choice as pretest and posttest. CTD measuring are using CTD measuring on physics learning and self CTD after physics learning. Data calculating and analyzing is using item response theory (IRT). CTS and MCOT analysis based on IRT which was saw total characteristic curve (TCC) are parameter-b score of posttest is smaller than pretest and latent of variable posttest bigger than pretest. That is means of items difficulty being easier or CTS and MCOT of students was increased after LoI model is done. CTD analysis based on IRT was saw TCC is parameter-b score of measuring CTD same as self CTD. Which is means of self CTD score strengthen measuring CTD score. Based on calculating and analyzing, there are effect of LoI implementation on CTS, CTD and MCOT of students.

Keywords: Level of Inquiry, Critical Thinking Skills, Critical Thinking Disposition, Mastery of Concepts in Optical Tools Materials and Item Response Theory.