

**MICHIGAN CIVIL SERVICE COMMISSION
JOB SPECIFICATION**

EDUCATION RESEARCH CONSULTANT

JOB DESCRIPTION

Employees in this job function as professional Education Research Consultants and Psychometricians, completing or overseeing a variety of assignments to assist local school districts in conducting their research and assessment projects, or in conducting research, evaluation, and assessment activities for local school districts and department staff.

There are five classifications in this job.

Position Code Title - Education Research Consultnt-E

Education Research Consultant 11

This is the entry level. As a trainee, the employee performs a range of professional education research consultant assignments in a developing capacity.

Education Research Consultant 12

This is the intermediate level. The employee performs an expanding range of professional education research consultant assignments in a developing capacity.

Education Research Consultant P13

This is the experienced level. The employee performs a full range of professional education research consultant assignments in a full-functioning capacity. Considerable independent judgment is used to make decisions in carrying out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

Position Code Title - Education Research Consultnt-A

Education Research Consultant 14

This is the advanced level. The employee may function as a lead worker or senior worker. At this level, employees are responsible for overseeing the work assignments of other professionals or have regular assignments which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level.

Position Code Title - Education Research Consltnt-2A

Education Research Consultant 15

This is the second advanced level. The employee functions as an psychometrician performing specialized assignments for a statewide or national testing program with 10,000 or more test takers, using highly complex advanced statistical research methods and analysis.

NOTE: Employees generally progress through this series to the experienced level based on satisfactory performance and possession of the required experience.

JOB DUTIES

NOTE: The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Education Research Consultant 11-14:

Plans, conducts, and reviews field studies and other research and assessment projects related to curriculum, facilities, teacher training, allocation of resources, and various school problems.

Conducts workshops for local educators on research and assessment procedures.

Advises and provides technical assistance to local school district personnel in research, evaluation, and assessment activities.

Approves or modifies evaluation, research, and assessment designs submitted by local school districts, universities, or other program-grant applicants.

Plans data collection, reporting, and analysis systems for the evaluation and assessment of education programs.

Designs and coordinates manual and computerized systems to research data; conducts statistical analysis of data to determine program success and effectiveness.

Designs and conducts operations involving issuance of research funding projects, monitors and evaluates projects, negotiates project grants, and develops recommendations for granting boards.

Attends meetings to exchange research and evaluation information.

Consults with local school district research personnel on state law and state board requirements.

Consults with local educators to develop, evaluate, and revise test items and test related materials.

Interprets assessment and evaluation requirements for federally funded projects to state personnel responsible for approving local school district evaluation designs.

Maintains records and prepares reports and correspondence related to the work.

Performs related work as assigned.

Additional Job Duties

Education Research Consultant 14 (Lead Worker)

Oversees the work of professional staff by making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

Education Research Consultant 14 (Senior Worker)

Performs on a regular basis professional education research consultant assignments which are recognized by Civil Service as more complex than those assigned at the experienced level.

Education Research Consultant 15

Conducts psychometric analysis for a state-wide assessment programs with 10,000 test takers.

Plans, conducts, assures, and provides oversight of operational psychometric analysis and procedures, including: automated test assembly, item development, item review, test development, sampling, item analysis, item calibration, equating, scaling, scoring, standard setting, and adaptive testing

Develops, oversees, and improves psychometric procedures involving various psychometric theories, including: classical test theory, generalizability theory, generalized Rasch model theory, multifaceted Rasch theory, generalized item response theory, multidimensional item response theory, non-parametric item response theory, and other complex psychometric theories.

Provides analysis to develop, oversee, and/or improve quantitative research procedures involving various statistical fields, including: univariate, multivariate regression, and Analysis of Covariance (ANCOVA); growth modeling; factor analysis; item analysis; hierarchical linear modeling; structural equation modeling; mixture modeling; value added modeling; automated constructed response item scoring; and other complex multivariate statistical methods.

Develops, oversees, and/or improves quantitative research procedures, including: study design, sampling, statistical procedures, minimization of threats to internal validity, maximization of generalizability.

Conducts test reliability and validity studies.

Implements psychometrics procedures for educational assessment programs.

Designs assessment tools.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level, thorough knowledge is required at the advanced level, and extensive knowledge is required at the second advanced-level.

Knowledge of modern developments, trends, and theories in education and education research, evaluation, and assessment.

Knowledge of the principles and practices of research, evaluation, and assessment.

Knowledge of standard measures and statistical tools used in education research, evaluation, and assessment.

Knowledge of different types of research and methods of gathering and evaluating data.

Knowledge of appropriate uses of objective-referenced and norm-referenced tests.

Knowledge of state and federal laws pertaining to education.

Ability to plan, conduct, and review research and assessment projects in the field of education.

Ability to conduct workshops relating to the work.

Ability to evaluate program-grant applications relating to evaluation, research, and assessment designs and make recommendations accordingly.

Ability to evaluate data.

Ability to analyze, interpret, and apply inferential statistics appropriately, including significance testing.

Ability to maintain records, and prepare reports and correspondence related to the work.

Ability to communicate effectively with others.

Ability to maintain favorable public relations.

Additional Knowledge, Skills, and Abilities

Education Research Consultant 14 (Lead Worker)

Ability to set priorities and assign work to other professionals.

Ability to organize and coordinate the work of others.

Education Research Consultant 15

Ability to collaborate with other staff to assist them during times of heavy loads.

Ability to meet deadlines in a sometimes stressful environment.

Ability to work within a project management framework of deadlines and deliverables.

Ability to convey results of complex psychometric and statistical studies to lay audiences.

Ability to convey complex psychometric and statistical concepts to lay audiences.

Ability to lead and conduct complex research studies.

Ability to conduct large-scale, operational, high-stakes psychometric procedures in a timely manner.

Knowledge of computerized adaptive testing.

Knowledge of advanced statistical and data analysis software programs such as SPSS, SAS, MPLUS, HLM, LISREL, R, MATLAB, AMOS, etc.

Knowledge of advanced psychometric software programs such as GENOA, BILOG, WINSTEPS, FACETS, PARSCALE, MULTILOG, NOHARM, etc.

Knowledge of and ability to navigate the tensions between theoretical purity and practical constraints in both psychometric and educational research.

Knowledge of issues in research design, causal inference, sampling, threats to validity, threats to generalizability.

Knowledge of theories, developments, trends, and operational use of modern, sophisticated statistical methodologies applicable to education, educational research, and assessment.

Knowledge of theories, developments, trends, and operational use of modern psychometric procedures.

Knowledge of the professional evaluation standards developed by the Joint Committee on Standards for Educational Evaluation.

Knowledge of the "Standards for Educational and Psychological Testing".

Working Conditions

None

Physical Requirements

None

Education

Education Research Consultant 11-14:

Possession of a master's degree in education, social science, or mathematics, with at least 8 semester (12 term) credits in one or a combination of the following: inferential statistics, educational measurement, evaluation design, or research design (excluding thesis or dissertation credits)

Education Research Consultant 15A:

Possession of a master's degree with a major in school psychology; educational psychology, educational testing, measurement, or assessment; psychometrics; inferential statistics; quantitative program evaluation; quantitative psychology; or organizational/industrial psychology, with 20 semester (30 term) post-bachelor's degree credits in quantitative research and analysis methodologies.

Education Research Consultant 15B:

Possession of a doctorate degree (PhD/EdD) with a major in school psychology; educational psychology, educational testing, measurement, or assessment; psychometrics; inferential statistics; quantitative program evaluation; quantitative psychology; or organizational/industrial psychology, with 30 semester (45 term) post-bachelor's degree credits in quantitative research and analysis methodologies.

Experience

Education Research Consultant 11

No specific type or amount is required.

Education Research Consultant 12

One year of post-master's consultative or administrative experience in education research or empirical research equivalent to the Education Research Consultant 11.

Education Research Consultant P13

Two years of post-master's consultative or administrative experience in education research or empirical research, including one year equivalent to an Education Research Consultant 12.

Education Research Consultant 14

Three years of post-master's consultative or administrative experience in education research or empirical research, including one year equivalent to an Education Research Consultant P13.

Education Research Consultant 15

Four years of post-master's consultative or administrative experience in educational research, empirical research, psychometric analysis, or school/educational testing programs for a national or statewide testing program.

Alternate Education and Experience

Education Research Consultant 12 - 14

Possession of a doctorate degree in measurement, evaluation, or research design may be substituted for one year of the required experience.

Education Research Consultant 12

Two years of post-master's degree experience conducting research involving statistical analysis may be substituted for the experience requirement.

Education Research Consultant P13 - 14

Possession of an educational specialist (EdS) degree with eight post-bachelor's semester credits in inferential statistics, educational measurement, evaluation design, or research design may be substituted for six months of the required experience.

Special Requirements, Licenses, and Certifications

None

NOTE: Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code

EDUCRSCST

Job Code Description

EDUCATION RESEARCH CONSULTANT

<u>Position Title</u>	<u>Position Code</u>	<u>Pay Schedule</u>
Education Research Consultnt-A	EDRSCSTA	W22-050
Education Research Conslntnt-2A	EDRSCS2A	W22-083
Education Research Consultnt-E	EDRSCSTE	W22-090

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10/04/2019