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Match Characteristics Questionnaire (Revised 2018)

The Match Characteristics Questionnaire (MCQ) is the most comprehensive measure of match characteristics available with published validity evidence¹. It is completed by matched mentors, includes 71 items, and typically takes 10-15 to administer. The MCQ was designed to complement the youth-completed Youth Mentoring Survey (YMS), and strong correlations between the two measures have been obtained. There is one version of the MCQ.

Structure & Scoring

The MCQ measures relational and instrumental (growth-focused) match relationship quality (MRQ), including positive and negative perspectives on internal quality (dynamics influenced directly by the matched mentor and youth), structure (mentors' priorities for match activities), and external quality (dynamics not directly influenced by the pair). MRQ. The version revised in 2018 consists of a page of questions about the match and participants and three sections of rating questions. The first section (22 items) includes 5 subscales measuring facets of internal quality associated with relational satisfaction, instrumental satisfaction, and availability to support. The second section (20 items) assesses structure, how much mentors prioritize activities relating to fun, sharing, character development, future outlook, and academics. The third section (29 items) includes seven scales: two additional internal MRQ scales measuring general and risk-related compatibility; four scales assessing external quality (e.g., programmatic support, parental engagement, peer support, and interference); and, one scale measuring mentors' perceived competence.

The three sections of the MCQ present statements that mentors read and answer by indicating their response on a six-point Likert-style scale. All scores are translated to a scale of 0-100. Higher scores on the internal and external scales indicate more positive ratings. Scores on the structure scales indicate mentors' relative valuation of different activities. Scores on subscales and broadscales are reported only if the respondent answers at least 67% of the questions.

Administration

The first page of the MCQ should not be administered sooner than 3-4 months into the match. Before that point, matches can experience a "honeymoon" period in which participants may have an unrealistically hopeful perspective on the match and may still be "on their best behavior." During this "honeymoon" period, ratings may not yield an accurate perspective on how a match is really going. The second and third pages may be administered sooner and it may be advisable to administer the compatibility and structure scales early on to develop perspective on the way a match is initially developing.

Among community-based matches, the full MCQ is recommended for administration 9-12 months into the match. Subsequent administrations may take place every 6-12 months. Among school-based programs, the survey is intended for administration as far into the match as possible without being affected by suspension of match meetings and the end of the school year (typically 4-6 weeks prior to the end of the school year). It is recommended that the MCQ be administered within two weeks of administering the mentee-reported Youth Mentoring Survey (YMS).

Use & Citation of the MCQ

Permission to use the YMS and MCQ is granted freely and may be obtained through ARC's website (www.MentoringEvaluation.com). The appropriate citation for the MCQ is provided below and should be used in any reporting associated with the surveys:

Harris, JT, & Nakkula, MJ. (2018). Match Characteristics Questionnaire (MCQ). Unpublished measure, Applied Research Consulting. Fairfax, VA.

We ask all who use the MCQ to consider sharing collected data with ARC along with related demographic information and, if possible, related outcome data. ARC will use this data to improve the surveys and to develop norms for them. ARC will respect all requests made about what is done with shared data. Data sharing is not required.

Helping Bridge the Gap between Research and Practice

Subscale Descriptions & Validity Evidence

ARC has analyzed over 2,000 MCQ surveys. Respondents in ARC's database tend to be matched with elementary-aged youth and the data is comprised mainly of responses from four large (statewide or national) mentoring organizations. White mentees from rural or suburban environments comprise the plurality of this data. However, the database also reflects hundreds of matches serving other ethnicities, adolescents, participants from urban settings, and other organizations.

The MCQ has strong validity evidence, some of which has been published (Nakkula & Harris, 2005)^{ii,iii}. The authors have additional, strong evidence that is being prepared for publication. Confirmatory factor analysis shows support for the constructs presented here. Scales from the MCQ have been found to correlate strongly with scales from the YMS and other measures of MRQ. The MCQ scales also have been found to predict outcomes related to academic functioning, length of match, and psychosocial development. Additional evidence has been gathered from interviews with mentors and practitioners who have taken or administered the survey. The MCQ's practical utility has been demonstrated through its use by practitioners as a tool to structure monthly match supervision. It has been used by researchers and practitioners in almost every one of the United States. It is in use in dozens of countries and on several continents. Factor analyses of the MCQ subscales have yielded adequate to strong reliability estimates (Chronbach's alpha). However, the items in each subscale also reflect the composition found to be most usefully predictive of outcomes and other match characteristics.

The elements of Internal MRQ measured by the MCQ include the following (with item count and reliability alphas for scales with 3+ items or correlations for two-item scales):

- Compatibility (7 items / alpha = .76), how much mentors feel they are well-matched with their mentees;
- Handle Mentee's Issues (3 / .61), how much mentors feel prepared to handle mentees' behavior/problems;
- Closeness (4 / .82), how much mentors feel close with mentees;
- Not Distant (6 / .78), how much mentors feel mentees are distant/push them away (hi scores = less distance);
- Satisfaction (5 / .85), mentors' sense of fulfillment in the relationship;
- Nonacademic Support Seeking (5 / .86), how much mentors feel mentees seek their support for nonacademic issues;
- Academic Support Seeking (2 / r = .70), how much mentors feel mentees seek their support with academics;
- Internal Relational Quality (25 / .92), includes items from the Compatibility, Handle Issues, Closeness, Not Distant, and Satisfaction scales; and,
- Internal Instrumental Quality (7 / .84), includes items from the Nonacademic Support-Seeking and Academic Support-Seeking scales.

The MCQ's Structure section first asks mentors to list and rank their highest priorities for the match. They then rate the importance of different activities relative to the priority they considered most important. Structure scales include:

- Fun Purpose (4 / .77), how much mentors value hanging out and simply having fun with their mentees;
- Sharing Purpose (4 / .68), how much mentors value talking with their mentees and supporting their openness;
- Character Development Purpose (4 / .78), how much mentors value activities focused on mentees' maturation and psychosocial development;
- Outlook Purpose (4 / .76), how much mentors value activities related to mentees' planning and preparation for their futures; and,
- Academics Purpose (4 / .79), how much mentors value school-related and mentally stimulating activities;
- Relational Structure (8 / .81), includes items from the fun and sharing subscales; and,
- Instrumental Structure (12 / .88), includes items from the character development, outlook, and academics scales.
- The ratio of Relational Structure to Instrumental Structure indicates whether mentors value more relational or instrumental activities in the match.

The elements of External MRQ measured by the MCQ include:

- Programmatic Support (6 / .79), how much mentors feel supported by the program; and,
- Parental Engagement (2 / r = .59), how positively mentors feel mentees' parents influence the match;
- Peer Support (2 / r = .50), how much mentors feel supported by family/friends; and,
- Interference (4 / .65): how much mentors feel logistical and personal factors interfere with meetings.

Mentor's self-perceived competence is measured with one scale:

- Competence (5 / .76), how capable mentors feel of relating with and helping the mentee.

Scoring the Survey

"Uninverting" items:

An "inverted" item is one for which a high rating would indicate a negative answer. To obtain meaningful scores, it is necessary to ensure that a high rating always indicates a positive answer. To do that, simply subtract the selected rating from one more than the number of answers in the rating scale. Since all the MCQ's scales are rated on a 6-point scale, uninversion is easy. Simply subtract the answer for all inverted items from 7. Thus, an answer of 3 on an inverted item could be "uninverted" by subtracting 3 from 7 to get 4 ($7 - 3 = 4$).

Standardizing Scores

It is not necessary to do so, but it is recommended that scale scores be translated to a scale of 0-100. This standardization makes it easier to think about the scores and to compare scores across scales. To standardize MCQ scores to a scale of 100, follow these instructions:

- Ensure that all ratings on "inverted" items have been "uninverted," using the directions above;
- Using the subscale breakdowns provided below, calculate a scale average based on the uninverted answers (i.e., making sure that high scores for each item are most positive);
- Subtract 1 from the subscale average;
- Multiply the result by 20.

An average rating of 4.5 on any MCQ scale would equal a score of 70 out of 100, using the following calculations:

- $4.5 - 1 = 3.5$
- $3.5 \times 20 = 70$.

Getting the Most Out of the MCQ

The MCQ may be used as an entire survey or specific scales/items may be selected/excluded. However, it is recommended that entire scales be used in order to avoid compromising the validity of the scales being used. It also is recommended that the entire survey be used because each scale measures match characteristics that lend important insight on different facets of the match. Internal quality scales are important to measure in order to assess whether mentors are experiencing their match in ways that would be expected to keep them engaged. Structure scales are important because they indicate how a mentor is approaching the match. To date, ARC's structure scales have been more predictive of outcome than internal scales (including indications of closeness) in ARC's evaluations. Mentors' self-rated competence tends to be strongly correlated with all aspects of internal match quality, so the items on the scale may be useful as discussion points during match supervision. The external scales include program support, a critical construct to understand, and only eight additional items to measure scales that have been found to predict variations in outcomes and match quality.

Subscale Composition

The following table presents the subscale composition of the MCQ. Inverted items (items that are asked so that a high rating indicates a negative rating) are indicated in red italics. Correlations are provided instead of reliability estimates for two-item scales.

SCALE	Included Items (<i>inverted items in red italics</i>)	Chronbach's Alpha (correlation for 2-item scales)
Internal Quality Scales		
Compatibility	43, <i>49</i> , 55, 58, 61, <i>67</i> , & 69	0.76
Handle Mentee's Issues	<i>46, 52, & 64</i>	0.61
Closeness	7, 19, 20, & 22	0.82
Discomfort	<i>3, 6, 10, 12, 15, & 21</i>	0.78
Satisfaction	2, <i>8, 13</i> , 14, & 16	0.85
Competence	44, 50, 56, 62, & 68	0.76
Nonacademic Support-Seeking	1, 4, 5, 11, & 18	0.86
Academic Support-Seeking	9 & 17	corr. = .70
Internal Relational Quality	2, <i>3, 6, 7, 8, 10, 12, 13</i> , 14, <i>15</i> , 16, 19, 20, <i>21</i> , 22, 43, <i>46, 49, 52</i> , 55, 58, 61, <i>64, 67</i> , & 69	0.92
Internal Instrumental Quality	1, 4, 5, 9, 11, 17, & 18	0.84
Structure Scales		
Fun Purpose	24, 29, 34, & 39	0.77
Sharing Purpose	23, 28, 33, & 38	0.68
Character Development Purpose	25, 30, 35, & 40	0.78
Outlook Purpose	27, 32, 37, & 42	0.76
Academics Purpose	26, 31, 36, & 41	0.79
Relational Structure	23, 24, 28, 29, 33, 34, 38 & 39	0.81
Instrumental Structure	25-27, 30-32, 35-37, 40-42	0.88
External Quality Scales		
Program Support	48, 54, 60, 66, 70, & 71	0.79
Parent Engagement	47 & 53	corr = .59
Friend/Family Support	59 & 65	corr = .50
Interference	<i>45, 51, 57, 63</i>	0.65

ⁱ Nakkula, M., & Harris, J. (2013) Assessing mentoring relationships. In Dubois, D. & Karcher, M. (Eds.), *Handbook of youth mentoring* (2nd Ed.). Thousand Oaks, CA: Sage Publications.

ⁱⁱ Nakkula, M. J. and Harris, J. T. (2010), Beyond the dichotomy of work and fun: Measuring the thorough interrelatedness of structure and quality in youth mentoring relationships. *New Directions for Youth Development*, 2010: 71–87.

ⁱⁱⁱ Karcher, M. J., Nakkula, M., Harris, J. (2005). Developmental mentoring match characteristics: Correspondence between mentors' and mentees' assessments of relationship quality. *Journal of Primary Prevention*.