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## Assessment of Emotional and Multiple Intelligences

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Educators at the secondary and university levels have been encouraged to adopt multicultural education in order to better educate their racial/ethnic and culturally and linguistically diverse (CLD) students (Banks, 2000). The traditional Anglo learner is no longer looked upon as the typical student type. Instead, educators are encouraged to implement various instructional methods for teaching diverse students. Correspondingly, in addition to culturally centered teaching, the search for successful alternative assessment practices has led researchers to inquire about other types of intellectual abilities (Gardner, 1999; Goleman, 1998; Salovey & Mayer, 1990).

Two significant approaches which have received increased recognition are Howard Gardner's (1993) work on multiple intelligences (MI) and Daniel Goleman's (1995) on emotional intelligence (EI). It is now well accepted that when schools attend to students' social and emotional education, behavioral problems decrease and academic achievement increases. There is also an

enhanced quality of relationships supporting students (Elias, 1997, cited in Zins, Heron, & Goddard, 1999). Gardner's and Goleman's work can be described as promoting a holistic view of children which advocates an integrated assessment/teaching approach (Mindes, 2007). These are important standpoints because the education and assessment of multiple/emotional intelligences can assist in intervention planning as a way of building upon observed weaknesses. More specifically, teachers and school psychologists can help design plans for assessing multiple and emotional intelligences, and integrating them into the intervention process.

This chapter aims to provide the school psychologist with knowledge of other theories of intelligence. Additionally, for consultative purposes, the chapter covers useful MI and EI educational strategies for practitioners to convey to consultee teachers during the consultation process. From this perspective, the chapter reviews non-traditional views of intelligence with a view toward a more inclusive assessment system for racial/ethnic and CLD children and youth.

## Introduction to Emotional Intelligence

For centuries, our society has highly valued a very concrete ideal of the human being: that of the intelligent person. In traditional schools, children were considered to be intelligent when they acquired the classic languages of Latin or Greek, mathematics, algebra, or geometry. More recently, intelligent children have been identified as those who obtain high scores on intelligence tests. The intelligence quotient (IQ) has become the reference point, and this standpoint is based on the positive relationship found between a student's IQ and academic performance. Students who score higher on intelligence tests usually achieve the highest grades in school. It should be noted that, although the commonly used Wechsler scales revisions have provided updated norms and index scores such as Working Memory/Freedom from Distractibility and Processing Speed, the fundamental theories of intelligence and construction of these instruments have remained basically the same for the past five decades in spite of the impressive developments in both theory and measurement—for example, Luria's Planning-Attention-Successive-Sequencing (PASS), Gardner's (1999) independent competencies, Bar-on's (1997, 1998; Bar-On & Parker, 2001) emotional intelligence theory and that of Ciarochi, Chan, and Caputi (2000) (all cited in Groth-Marnat, 2003, p. 140).

This view of the intelligent person has now reached a crisis point for two reasons. First, academic intelligence is not enough to achieve professional success (see Sternberg's [1997] practical commonsense reasoning theory). Lawyers who win more cases, prestigious doctors who service more patients, brilliant professors, successful businesspeople and managers who achieve the

best results, were not necessarily the most intelligent in their classes at school. They were not necessarily those teenagers who always raised their hand first when the teacher asked a question, or who stood out for their excellent grades in high school. They were not those adolescents who sat alone during break time, while the other kids had lunch together or played football. However, they were those who knew how to read their own emotions, and how to manage them correctly so that their emotions would work together with their intelligence. They were those who cultivated friendships, who knew the mechanism that motivated people; in short, they were more interested in people than in things. They were those who understood that the largest asset we have is human capital.

Second, intelligence does not guarantee a successful life (Bar-On & Parker, 2001; Ciarrochi, Forgas, & Mayer, 2001). It does not guarantee happiness with significant others, or with one's children, and it does not supply one with more or better friends. People's IQs do not contribute to their emotional equilibrium, nor to their mental health. Emotional and social abilities are responsible for our emotional and mental stability, and for our social and relational adjustment. In this context, society asks itself: Why are emotions so important in everyday life? The answer is not easy, but it has driven us to a more open attitude about other models of human beings.

In this critical moment, the exclusive ideal of the intelligent person does not hold or raise the concept of EI as an alternative to the classic view. This general crisis has reached the schools, showing the limitations of an educational system focused exclusively on intellectual abilities. School psychologists have seen how their students differ, not just in their grades but also in their emotional abilities. These differences in emotions have not gone unnoticed by parents or schoolmates, and they have also been noticed by science. During this decade, science has shown that this range of personal abilities decisively influences a child's psychological adjustment to class, emotional well-being, academic achievements, and future employment (Salovey & Sluyter, 1997). Emotional intelligence theories point out that our ability to perceive, understand, and regulate emotions is crucial for our adjustment to the environment, and contributes substantially to our psychological well-being and personal growth, regardless of cognitive abilities and/or academic performance (Salovey & Mayer, 1990; Mayer & Salovey, 1997).

The concept of EI was first introduced to psychology by Peter Salovey and John Mayer in 1990 (Salovey & Mayer, 1990). Although this is a novel concept, it is easy to find a clear connection with previous research on social intelligence work initiated by Thorndike in the 1920s (Thorndike, 1920), and continued by other prominent psychologists such as Wechsler (1958). Conversely, concepts such as intrapersonal and interpersonal intelligence, developed and explored by Howard Gardner (1983, 1993) are clear antecedents

of the concept of EI. These researchers, without minimizing the importance of cognitive aspects of intelligence, recognized the essential value of *non-cognitive* components—that is, the affective, personal, and social factors that predict our capacity for adjustment in everyday life. Scientific literature identifies two major models of emotional intelligence: *mixed models* and *ability models*. Mixed models of EI combine personality characteristics such as optimism and self-motivation abilities with emotional abilities (Bar-On, 1997; Goleman, 1995, 1998). Mayer and Salovey’s *ability model of emotional intelligence* (Mayer & Salovey, 1997; Mayer, Caruso, & Salovey, 1999) focuses exclusively on the emotional processing of information and studies the abilities related to this processing. This theory defines EI as someone’s ability to attend to and perceive emotions appropriately and accurately, their ability to assimilate and understand these emotions properly, and the skills involved in regulating and modifying their own or others’ affect. More precisely, these authors define EI as follows: “Emotional intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p. 10).

The *mental ability model* of EI consists of four major components:

- perceiving emotions;
- using emotions;
- understanding emotions;
- managing emotions (see Table 3.1).

**Table 3.1** The Four Branches of Emotional Intelligence

<i>Branch Name</i>	<i>Description of Skills Involved</i>
Perceiving emotions	The ability to perceive emotions in oneself and others as well as in objects, art, stories, music, and other stimuli
Facilitating thought	The ability to generate, use, and feel emotion as necessary to communicate feelings or employ them in other cognitive processes
Understanding emotions	The ability to understand emotional information, to understand how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings
Managing emotions	The ability to be open to feelings, and to modulate them in oneself and others so as to promote personal understanding and growth

These abilities are linked so that, to regulate emotions properly, a good understanding of these emotions is necessary; at the same time, a good understanding of emotions requires the skill to perceive emotions accurately (Martínez-Pons, 1997; Palmer, Gignac, Bates, & Stough, 2003). However, the opposite is not always true. People with a great ability to perceive emotions may lack understanding and regulation of emotions. This ability may be self-used (personal competence or intrapersonal intelligence) or may be used on others (social competence or interpersonal intelligence). In this sense, EI differs from social intelligence and from social abilities since EI comprises self-emotions, private emotions that are important for personal growth and for emotional adjustment. Conversely, intrapersonal and interpersonal dimensions are quite independent and do not necessarily appear together. One can observe people who are very good at understanding and regulating their emotions, and emotionally balanced, but who barely connect with other people. The contrary also happens: some very empathic people who easily understand others' feelings may be very awkward when it comes to managing their own feelings.

Emotional intelligence as an "ability" cannot be understood as a personality trait or as part of a person's *character*. For example, consider a person who, as a characteristic of their personality, is outgoing. It is not possible from this trait to predict that person's intrapersonal or interpersonal degree of EI. However, there is some degree of interaction between EI and personality, as there is between personality and abstract intelligence. Will someone with a low IQ use and develop their emotional intelligence in the same way as a person with a high IQ? In this sense, people with certain personality types will develop their emotional abilities to a greater or lesser extent.

Recent research has shown that the lack of emotional abilities affects students not just in school, but also outside school settings (Ciarrochi, Chan, & Bajgar, 2001; Fernández-Berrocal & Extremera, 2002; Liao, Liao, Teoh, & Liao, 2003; Lopes, Salovey, & Straus, 2003; Trinidad & Johnson, 2002). A review of this research reveals four main areas which demonstrate that a lack of EI facilitates personal conflicts. Those problems within the educational context associated with *low* EI levels are:

1. lack of psychological well-being and adjustment;
2. a decrease in the number and quality of interpersonal relationships;
3. worsening of academic performance;
4. disruptive behaviors and substance abuse.

For the practitioner, knowledge of low EI levels is clinically important but it should not be confused with cultural reactions. The following section presents an overview of the suggested multicultural competencies for the identification of EI.

## Emotional Intelligence and Multicultural Competencies

The multicultural competencies of school psychologists imply various aspects, namely (Papadopoulos, Tiki, & Taylor, 1998):

- cultural awareness;
- cultural sensitivity; and
- cultural knowledge.

Theoretical relationships between EI and multicultural competencies have scarcely been studied. However, as Table 3.2 illustrates, some of the abilities needed to reach an optimal level of multicultural competence are related, directly or indirectly, to the two major aspects of EI—*intrapersonal emotional intelligence* and *interpersonal emotional intelligence*—and, more accurately, to the following four aspects:

1. cultural sensitivity;
2. interpersonal and communication skills;
3. respect; and
4. appropriateness.

The significance of EI for developing multicultural competence has been shown in the field of health (medical, nursing work, and health care) (Betancourt, Green, & Carrillo, 2002; Papadopoulos, Tiki, & Taylor, 1998) and its importance is also being emphasized among school psychologists and counselors (Constantine & Gainor, 2001). With respect to school psychologists, possessing a healthy level of EI may be crucial to helping them service students who come from a wide range of cultural backgrounds.

In particular, school psychologists' EI can play an important role in their ability to empathize and to address the mental health concerns of racial/ethnic and CLD children.

**Table 3.2** Examples of Multicultural Competencies

- 
- *Preparedness*
    - Self-assessment
    - Linguistic competence
    - Learning skills
  - *Willingness*
    - Desire to explore culture of self and others
    - Desire for experience with others
  - *Cultural sensitivity*
    - Empathy: willingness to look for and listen to the core message of others
  - *Interpersonal and communication skills*
  - *Respect*
    - Awareness of self and other limitations
  - *Appropriateness*
    - Ability to recognize and respond appropriately to the feelings and practices of a group
    - Rejection of prejudice
    - Awareness of insensitive, inappropriate, and/or discriminatory practices
  - *Emotional intelligence*
    - Intrapersonal emotional intelligence
    - Interpersonal emotional intelligence
  - *Cultural intelligence*
    - Salient knowledge of culture held with family
    - Understanding of groups sharing family's culture
    - Knowing where family and groups "fit" with region (ethnohistory)
  - *Personal interpretation and practices*
    - Stereotyping, ethnocentric thinking
    - Health beliefs, practices, and behaviors
    - Power distribution (self, culture, others)
- 

## What Emotional Intelligence Abilities Should a School Psychologist Have?

The relevance of EI for the school psychologists is twofold: On the one hand, the evaluation and improvement of culture-focused emotional intelligence is a matter of growing importance in the educational context. Moreover, school psychologists' emotional competencies must be highly developed. From the socioemotional viewpoint, school psychologists are required to enhance their professional competency profile with two important abilities: *leadership* and

*communication*, and these involve EI. This is important since school psychologists must have the ability to lead and communicate with various racial/ethnic and CLD children, individually and in groups. Furthermore, they will need: (a) sound knowledge about their own emotions; (b) the ability to regulate emotional reactions; and (c) interpersonal abilities to help diverse children understand and handle their behavioral, personal, and social problems. These socioemotional competencies are crucial since school psychologists will need to work professionally and efficiently with culturally diverse students to help measure and develop their EI.

It is possible to evaluate a school psychologist's EI level and check whether it fits the ideal profile needed for a professional, using an EI scale such as the Trait Meta-Mood Scale–TMMS (for a detailed description of TMMS, see Appendix 3.2). As delineated in Appendix 3.1, the ideal scores for a school psychologist would be:

- *attention*: between 25 and 36;
- *clarity*: higher than 35;
- *repair*: higher than 35.

However, in order to evaluate interpersonal abilities, the use of an instrument such as the Mayer-Salovey-Caruso Emotional Intelligence Test would be more accurate.

## Assessment of Emotional Intelligence in the School Context

Assessing EI in a class setting can result in valuable information for the school practitioner, since this will provide insight into a child's affective and social development. This kind of assessment also implies the need to obtain reliable data to set a starting point for any individual or group intervention. In the educational context, three approaches for assessing EI have been developed, each of which has advantages and disadvantages:

- The *first approach* comprises classic measurement instruments based on questionnaires and self-report measures, completed by the student.
- The *second approach* assembles measures from external observers based on questionnaires that are completed by the students' peers or by the teacher.
- The *third approach* gathers what are called abilities or performance measures of EI. These are emotional tasks that are solved individually by the student.



## Classic Instruments for Assessing EI: Questionnaires, Scales, and Self-Reports

Questionnaires, scales, and self-reports are the most traditional instruments for assessing EI, and the most frequently used in the field of psychology. Through questionnaires, profiles of personality dimensions such as extroversion and neuroticism can be developed. Moreover, emotional aspects such as empathy and self-esteem can be measured in addition to the assessment of more cognitive factors such as constructive thinking and coping strategies. Similarly, scales and questionnaires have been used in the field of EI to assess efficient management of emotions. In most cases, these questionnaires consist of short verbal statements. The student's emotional intelligence is evaluated through estimating the level of various emotional abilities. This is done by means of a Likert scale that provides a selection of responses ranging from (1) strongly disagree to (5) strongly agree. The obtained score is called *perceived or self-reported emotional intelligence*. It indicates students' beliefs and expectations about their abilities to perceive, discriminate, and regulate their emotions. However, as Mayer and Salovey (1997) regard EI as a genuine intelligence, EI cannot be assessed exclusively by means of paper and pencil questionnaires because these methods would be defective. The authors point out that questionnaires may be affected by the respondent's perceptive biases, and also by a tendency to fake an answer to show a more positive impression. In spite of this, the utility of self-report measures in emotional fields is indisputable, mainly to obtain information about intrapersonal abilities and self-reported behaviors from children and youth in educational settings.

As our emotional world is internal, one of the most efficient methods to get to know a student, in spite of its biases, is by asking him about feelings, thoughts, or how certain events occurring in the classroom affect that student. Assessment of EI by means of questionnaires is useful when the school psychologist or educator wants to get an index of a student's emotional adjustment. It is also useful to obtain a profile of the affective deficiencies in certain areas, which may only be evaluated by the introspection of the student. For example, questionnaires are extremely useful in assessing: (a) the ability to discriminate emotions; (b) attention to positive and negative emotions; and (c) the level of regulation of emotions, or the degree of tolerance of frustrations. Figure 3.1 presents an example of the assessment of the level of emotional competence, based on a typical EI scale.

As previously reported, using this approach students self-assess their perceived capacities in several emotional competencies and skills. There are several EI questionnaires with similar structure, but they differ in the

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**Instructions**

Please read each statement and decide whether or not you agree with it.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

I don't pay much attention to my feelings.	1	2	3	4	5
I don't usually care much about what I'm feeling.	1	2	3	4	5
It is usually a waste of time to think about your emotions.	1	2	3	4	5

**Figure 3.1** Example of Emotional Level of Competence Assessment

component of EI that is being evaluated. One such questionnaire is the Trait Meta-Mood Scale (TMMS). The TMMS is one of the most popular questionnaires in the scientific field, and it is also widely used in clinical practice. It can be used from age 12. The scale offers a personal estimate of the reflective aspects of our emotional experiences. The TMMS comprises three crucial dimensions of intrapersonal emotional intelligence:

- *attention*: the degree to which the individual observes and thinks about their feelings (e.g., “I pay a lot of attention to how I feel”);
- *clarity*: the understanding of one’s emotional states (e.g., “I am usually very clear about my feelings”);
- *repair*: the ability to regulate one’s feelings (e.g., “When I become upset, I remind myself of all the pleasures in life”).

The original version is a 48-item questionnaire, although the use of abridged versions such as the 30-item and 24-item ones is recommended (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995, Spanish adapted version by Fernández-Berrocal, Extremera, & Ramos, 2004). Appendix 3.2 includes English and Spanish versions of the TMMS-24, and the correction criteria for students aged between 12 and 17. For children with reading difficulties, the school psychologist can read the questionnaire to the child. This modified procedure will not affect the results.

Another similar instrument is Schutte et al.’s (1998) Emotional Intelligence Scale. This measurement renders a single score in EI. However, further research has extracted four factors from this scale:

1. emotional perception (e.g., “I find it hard to understand the non-verbal messages of other people”);
2. management of emotions in the self (e.g., “I motivate myself by imagining a good outcome to tasks I take on”);
3. management of emotions in others (e.g., “I help other people feel better when they are down”); and
4. use of emotions (e.g., “When I feel a change in emotions, I tend to come up with new ideas”).

For Spanish respondents, the instrument to use for the assessment of EI is the Bar-On Emotional Quotient Inventory (EQ<sub>i</sub>) (Bar-On, 1997, Spanish adapted by MHS Inc, Toronto, Canada). However, as the authors state, this instrument is closer to a questionnaire for a broad range of emotional and social abilities, rather than a true questionnaire for EI.

The Bar-On EQ<sub>i</sub> consists of 133 items and includes four validity indices and a sophisticated correction factor rendering scores for the following components:

- *intrapersonal* (self-regard, emotional self-awareness, assertiveness, independence, and self-actualization);
- *interpersonal* (empathy, social responsibility, and interpersonal relationships);
- *stress management* (stress tolerance and impulse control);
- *adaptability* (reality testing, flexibility, and problem solving);
- *general mood scale* (optimism and happiness).

Based on the Bar-On EQ inventory, the Bar-On EQ<sub>i</sub>:YV measures the level of emotional and social functioning in children and adolescents. This questionnaire can be utilized by psychologists, school counselors, and social workers in order to identify a child’s strong and weak areas as well as to develop skills. Emotional intelligence assessment can help pinpoint negative and ineffective coping strategies that can contribute to underachievement, dropping out of school, or the development of emotional and behavioral problems.

The Bar-On EQ<sub>i</sub>:YV consists of 60 items with five subscales that probe the areas of interpersonal and intrapersonal abilities, stress management, adaptability, and general mood. Its multidimensional scales assess the same core elements as the adult version except for the selection and management development features. A Positive Impression scale is included to identify those who may present an exaggerated positive impression, as well as a correction factor to adjust for a positive response bias. The Inconsistency Index identifies inconsistent response styles. The Inventory has a large normative base of approximately 10,000 children and adolescents and includes gender- and

age-specific norms. The abbreviated 30-item short form, EQ<sub>i</sub>:YV(S), is ideal for screening large groups in situations when time with individual respondents is limited.

For children with reading difficulties, or in other relevant circumstances, the Bar-On EQ-Interview may be used and also helps to contrast results. The Bar-On EQ-Interview is based on the same concept as the self-report Bar-On EQ<sub>i</sub>. It can be used during the interview process following the administration of an EQ<sub>i</sub> self-report. One can use this semi-structured interview in its entirety, or select those sections where one wants to confirm an individual's high or low scores.

### The Measurement of EI Based on External Observers

This second method for measurement of EI is based on the following assumption: if EI implies the ability to understand and manage the emotions of people around us, why not ask the closest persons in our lives how we manage our emotions in public and how we cope with everyday life events? This method is considered effective for the assessment of interpersonal EI. That is, it demonstrates the level of EI that others perceive. These instruments are usually called instruments based on external observation or "360 degree assessment." Teachers or classmates are asked for their opinion on how a particular child interacts with other children, how the child resolves troubles in the class, and how the child copes in stressful situations. This type of measurement is complementary to the first approach for assessing EI, since it gives additional information and also abolishes social desirability biases. Some questionnaires, such as the EQ<sub>i</sub> by Bar-On (1997, 1998), include an external observation instrument that is complementary to the questionnaire filled out by the child. On other occasions, sociometric techniques called "peer nominations" are used. Here, students and/or teachers evaluate the rest of the class for several emotional adjectives and for usual behaviors. Figure 3.2 presents an example for assessing interpersonal emotional competency using the external observation method.

This type of methodology measures interpersonal aspects, but displays some limitations. First, it is very difficult to be with an individual and/or child for 24 hours a day, so the observer's opinion depends on the way the student/child behaves in the presence of the observer. Therefore, as this assessment is based on another individual's observations, it includes the other individual's perceptive biases. Second, since the observer may not always be where the student/child is, and as behavior varies depending on the context, this methodology gives restricted information limited to one context: the

**Instructions**

The following set of statements describes ways of being, or people's general behaviors. Please read each statement carefully and grade your partner on each of them.

Please use this scale to indicate the degree to which you agree or disagree with each statement. Mark an X over the appropriate number.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

Are you capable of understanding people?	1	2	3	4	5
Are you a person to whom personal problems can be told?	1	2	3	4	5
Are you good at managing conflictive or stressful situations?	1	2	3	4	5

**Figure 3.2** Example of Interpersonal Emotional Competency Assessment

class. Third, this process hardly gives data about intrapersonal emotional abilities such as emotional conscientiousness, affective attention, or emotional clarity. However, this methodology provides new data not available via other methodologies. Through the external observers' evaluation, valuable information is obtained about how peers perceive the student on a socioemotional level. This method is also very useful for assessing abilities related to interpersonal competencies, such as lack of self-control, impulsivity, and management of the emotions in situations of social conflict—for example, in an altercation between two students. Nevertheless, caution is stressed in some cases. Practitioners are urged to establish rules of confidentiality, and guidelines for evaluators should be enforced so as to avoid potential negative impact on, for example, students who are not well liked.

### The Measurement of EI Based on Ability Tasks

This last group of measures was developed to make up for the biases of other approaches. The aim of this group of instruments is to abolish the faking of answers by the respondent when a positive image is desirable. It is also useful to diminish perceptive and situational biases brought about by external observers. This makes tremendous common sense. If we want to assess whether a student/child is good at one skill, the best way to do it is to test the student/child's abilities in this skill.

For example, we are planning a musical in our school. We are looking for the best pianist among our students. The best—and fastest—way to find that person is to give our students a score from Beethoven and ask them to play it as well as they can. In this case, we do not ask our students how good they think they are at playing the piano, or ask their parents how good their children are at playing the piano. The task requires the students to *show* their ability by playing the piano.

In general, ability measures consist of a group of emotional skills, new in both their proceeding and their format, that assess students' styles of solving emotional tasks by comparing the answers with predefined objective score criteria (Mayer et al., 1999; Mayer, 2001). For example, to assess perception of emotions, photographs of faces are presented, and the child is asked to identify the emotion on the face. Is it angry? Sad? Happy? And so on. Similarly, to assess a child's ability to manage emotions, the suitability of the strategies chosen by the child to solve an interpersonal conflict is measured. As is done in the measurement of verbal, spatial, or mathematics intelligence, researchers consider that EI can be measured through several emotional tasks, just as IQ can be measured through the abilities shown in, for example, the Wechsler scales of intelligence.

From this approach, two ability measures are available for assessing EI. These are the Multifactor Emotional Intelligence Scale (MEIS; Mayer et al., 1999), based on Salovey and Mayer's (1990) model of EI, and its updated version, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT 2.0; Mayer, Salovey, & Caruso, 2002; Mayer et al., 1999; Mayer, Salovey, Caruso, & Sitarenios, 2003). These instruments comprise the four classes, or "branches," of abilities of EI as it is defined by Mayer and Salovey (Mayer & Salovey, 1997):

- *perceiving emotions* (assessed using the Faces task and the Pictures task);
- *using emotions* (assessed using the Sensations task and the Facilitation task);
- *understanding emotions* (assessed using the Blends task and the Changes task);
- *managing emotions* (assessed using the Emotional Management task and the Social Management task).

The MSCEIT is designed to assess EI. There are two versions of this test: the adult version (MSCEIT) and the youth version, Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV). The adult version, designed for use with adults aged 17 years or older, consists of 141 items and its administration needs about 45 minutes. The youth version, the MSCEIT:YV, is designed to assess EI among pre-adolescents and adolescents (ages 10–18). This ability-based scale measures how well students perform tasks and solve

emotional problems. This scale yields a single overall performance score in addition to the two area scores for Emotional Experience and Emotional Reasoning. Guided by the Four-Branch Model of EI, these area scores are further elaborated to encompass the four central areas of EI, the ability to:

- accurately perceive emotions;
- use emotions to facilitate thinking, problem solving, and creativity;
- understand emotions; and
- manage emotions for personal growth.

The MSCEIT: YV consists of 66 items and its administration time is approximately 30 minutes.

Like the others discussed, this EI assessment approach has several limitations. Just as with other instruments that give concrete situations that must be solved, the tasks are very contextual and cultural. This indicates that the scales must be adapted to the population being measured. Nevertheless, the advantages of this new approach are indubitable, especially combining the scales with previous measures. This type of instrument can obtain indicators of performance of concrete emotional abilities that may be taught and trained later. Moreover, such scales abolish perceptive biases and, because of their format, responses are difficult to fake if students attempt to give a more positive image of themselves. Figure 3.3 presents an example of how to measure EI from this approach—that is, using ability measures. The examples in Figure 3.3 are similar to those used in the MSCEIT. The original items cannot be reproduced due to copyright restrictions.

## School Case Example

School psychologists should seriously consider assessing EI since this obviously aids in discovering several aspects of a child's emotional and personality profile. The following case example presents an exemplary step-by-step EI screening/evaluative process for school psychologists to follow when servicing children and youth of diverse cultures and/or racial/ethnic groups.

Suppose a school psychologist would like to detect whether certain racial/ethnic CLD children might be at socioemotional risk. The first step would be to screen children who might be at-risk by administering the TMMS-24. The school psychologist would then choose those racial/ethnic/CLD children who scored below the mean on the TMMS-24 for racial/ethnic/CLD children their age, and would work with several groups (about 100 children). The TMMS-24 profile to look for is racial/ethnic and

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**Reading Emotions***Instructions*

A set of pictures of faces will be shown. Look at them, and then indicate which feelings are expressed on these faces. Indicate the degree to which emotions are expressed in each face, using the emotions listed below.



No disgust	1	2	3	4	5	Extreme disgust
No sadness	1	2	3	4	5	Extreme sadness
No happiness	1	2	3	4	5	Extreme happiness
No fear	1	2	3	4	5	Extreme fear

**Using Emotions***Instructions*

Next, a set of everyday life situations is shown. Please choose one answer for each item and indicate which emotion or emotions would be useful to solve each situation.

Which mood would be useful when you are trying to solve a difficult problem—as, for example, a math equation?

	Not useful				Useful
Tension	1	2	3	4	5
Sadness	1	2	3	4	5
Joy	1	2	3	4	5

**Understanding Emotions***Instructions*

Next, several different situations that happen to people are shown. Once you have read the situations, please indicate how these persons may feel.

Albert is tired. He is even stressed when he thinks about all the homework he still has to do and about all the exams he still has to take. When this same day his teacher explains one more essay they have to do which is due at the end of the week, Albert feels . . .

- a. tired.
- b. depressed.
- c. guilty.
- d. frustrated.
- e. anxious.

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**Figure 3.3** (*Continued*)



### Regulating Emotions

#### *Instructions*

Next, several situations that happen to different people are shown. Please choose which actions or emotional strategies would be more useful to help people keep their affect.

Kristen has just arrived back from her holiday. She feels relaxed, cheerful, and full of energy. How useful would each of these actions be so that Kristen keeps these emotions?

*Action 1:* Kristen begins to write a list of all the things she has to do.

1. Very ineffective, 2. Somewhat ineffective, 3. Neutral, 4. Somewhat effective, 5. Very effective

*Action 2:* Kirsten begins to think about where and when she might go on her next holiday.

1. Very ineffective, 2. Somewhat ineffective, 3. Neutral, 4. Somewhat effective, 5. Very effective

*Action 3:* Kirsten decides that the best thing to do is to ignore these positive feelings and face reality.

1. Very ineffective, 2. Somewhat ineffective, 3. Neutral, 4. Somewhat effective, 5. Very effective

*Action 4:* Kirsten calls a friend to tell her about the holiday.

1. Very ineffective, 2. Somewhat ineffective, 3. Neutral, 4. Somewhat effective, 5. Very effective

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**Figure 3.3** Measurement of EI Using Ability Measures

CLD children with a very high or very low score on Attention, and a very low score on each of Clarity and Repair. Table 3.3 shows (in bold) the scores in the TMMS-24 that indicate socioemotional risk. These three factors (Attention, Clarity, and Repair) do not necessarily have to appear together to detect racial/ethnic and CLD children at risk of socioemotional problems. A decisive factor for socioemotional risk is a very low score on Repair (<22).

Once the school psychologist has identified at-risk racial/ethnic/CLD children, a clinical interview, combined with the EQi-YV or with the MSCEIT:YV for each child, is recommended to verify the screening outcomes. These additional instruments will explore the emotional deficits detected and will indicate their importance and their after-effects upon the child's emotional and social life.

Once socioemotional factors have been identified, the practitioner can begin to implement social emotional learning interventions at the classroom level as well as in the home through parental collaboration and teacher-centered consultation (see Elias & Arnold, 2006). The next section addresses social skills training recommendations.

**Table 3.3** Indications of Socioemotional Risk

	<i>Scores</i>
<b>Attention</b>	Needs to improve attention: pays little attention < 21 Attention is right 22–33 Needs to improve attention: pays too much attention > 34
<b>Clarity</b>	Needs to improve understanding < 21 Understanding is right 22–33 Excellent understanding > 34
<b>Repair</b>	Needs to improve repair < 22 Repair is right 23–34 Excellent repair > 35

## Social Skills Training Suggestions

In his more recent book, Daniel Goleman (1995) states that the contribution of EI to personal, scholarly, and professional success is the most important variable. This statement is based on the argument that IQs explain only 20 percent of success in everyday life, and that the remaining percentage—80 percent—could be explained by EI. This view is very optimistic and is well accepted because it has been so widely embraced by the mass media; this has convinced many schools to create very ambitious intervention programs. However, is it possible to improve EI? The answer is yes. Various contrasted studies support the effectiveness of specific EI training programs that have been developed toward specific emotional abilities. In particular, for educational environments, the training program called the Collaborative for the Advancement of Social and Emotional Learning (CASEL—see [www.casel.org](http://www.casel.org)) has shown very promising results (see Elias, Hunter, & Kress, 2001 and Cohen, 2001 for a specific review).

A representative example is the Social Decision Making and Problem Solving Program (SDM/PS). SDM/PS is a program aimed at the promotion

of social and emotional skills from a Mixed Model of EI, which enables children to pursue healthy life choices. The program has been teacher tested and research validated since 1979, and the practice of these skills is easily infused into existing academic curricula. The program works well with general and special education children at the elementary and middle school levels (e.g., Elias & Bruene Butler, 2005).

Recently, Elias and Arnold (2006) reviewed and demonstrated practice programs in action by master teachers who had worked with social and emotional programs which provided empirical and practical support for success. Most of these programs show a wide conception of EI, approaching Mixed Models of EI. The purpose of Elias and Arnold's comprehensive guide is to motivate teachers and professionals with specific examples of activities to be used in the classroom. The programs are presented in developmental ranges from preschool to high school with important applications for both regular and special education curricula.

Similar activities for students are included in different social and emotional literacy programs anchored in Salovey and Mayer's EI model. These programs are also field-tested and provide evidence-based lessons designed to improve emotional and social competence (Brackett & Katulak, in press; Fernández-Berrocal & Ramos, 2004).

For example, the Emotional Literacy in the Middle School (ELMS) program is a multi-year program that incorporates weekly social and emotional learning lessons into presented curricula (see Brackett & Katulak, in press). ELMS provides teachers with six concrete "how to" steps for implementation:

1. introduction of feeling words;
2. designs and personified explanations;
3. academic and real-world associations;
4. personal family association;
5. classroom discussions;
6. creative writing assignments.

In addition, there are student activities which are designed to have students work on the four EI skills: the perception, use, understanding, and management of emotions. A similar program, "Desarrolla tu Inteligencia Emocional" (Increase your Emotional Intelligence), has been developed in Spain for middle and high school students. This program works with six emotional abilities in different relevant aspects of EI. Some examples are shown in Figure 3.4.

	<i>Personal EI</i>	<i>Interpersonal EI</i>
<i>Perception of emotions</i>	Reading and expressing my feelings	Reading emotions in others
<i>Understanding emotions</i>	Understanding how it is changing my emotions	Experiencing the emotions of another person within oneself (empathy)
<i>Emotional regulation</i>	Managing personal stressful states	Managing conflictive social situations

**Figure 3.4** Examples of Activities From the “Increase Your Emotional Intelligence” Program

EI training can be strengthened through the use of the Salovey and Mayer (1990) model of EI. Presented below is a practice exercise from the “Increase your Emotional Intelligence” program as an example of EI training methodology. The exercise shown in Figure 3.5 pertains to the understanding of emotions (empathy) and can be used at any age. However, in some cases it will be necessary to make some changes to adapt to the ability level of each individual/child. The practice exercise can be self-administered or utilized when working with others.

## Is It Possible to Train Both EI and Multiple Intelligences Jointly?

Hatch and Kornhaber (2006) indicate that there are important conceptual differences between EI and multiple intelligences (MI) theories. However, some specific projects from some of the most effective MI schools show that efforts to support cognitive intelligences and to promote EI can go together. These authors illustrate this link between EI and MI with a project developed at Searport Elementary School (Searport) about an archeological dig. The aim of this project was for the class members to create an exhibition of their findings to be placed in the town museum. To attain this goal, the students worked together in groups to collect, select, and organize the materials. During this joint effort, they had to use different cognitive intelligences such as logical-mathematical intelligence, linguistic intelligence, and spatial intelligence. However, they also had to use their intrapersonal and interpersonal intelligences (that is, their EI) to discuss and negotiate with their classmates

### Practice Exercise

#### Understanding Emotions: Empathy

Now we present an exercise that you may practice with a friend or a relative. You just need one person to help you in this practice.

- Ask a relative or a close friend to tell you an experience that he or she has lived recently, but in an objective way, describing the facts but not the feelings (e.g., last Wednesday was my birthday, and my mom brought me a present).
- Once the story is finished, try to guess what this person felt in every experience related (e.g., I guess you were surprised, and felt joy, euphoria, love).
- Ask your relative or friend whether you have guessed his/her feelings or not (e.g., you felt very happy and surprised when you opened the door and saw your mom with a beautiful present on her hands).
- In case you have not guessed it, ask him or her to explain the causes of his or her feelings, and the relationship to the exact situation. (e.g., why did you feel disappointed when you opened the present?).
- To clarify what your friend feels and their reasons for their feelings, paraphrase so you make sure you understand the feelings and the situations (e.g., then you felt disappointed because she gave you a tie . . . ).

**Figure 3.5** Practice Exercise From the “Increase Your Emotional Intelligence” Program

regarding the final collection to be exhibited in the museum. Hatch and Kornhaber (2006) propose that, for future intervention programs it would be most helpful for students if schools considered creating programs designed to build on both perspectives (i.e., EI and MI).

The implementation of EI and MI training and these collaborative projects is exciting for school psychology practice since it can provide students of diverse cultures and/or racial/ethnic populations with the opportunity to demonstrate their intelligences (EI and MI) through collaborative group work. Most importantly, such a project(s) can be ideally structured for evaluating individual capacities and contributions through the venue of curriculum-based assessment methods such as portfolio assessment (see Chapter 2).

### What’s in the Future for EI?

Emotional intelligence research is still in its infancy. It must be stressed that this concept was introduced in scientific literature only 14 years ago. Moreover, instruments for assessing EI have been used for barely six years,

and most of them have been used solely for scientific purposes and with adults. Further research should focus on four major aspects:

- developing instruments capable of assessing EI in early ages (from 3 to 12 years of age);
- developing EI assessment instruments that are culturally sensitive;
- taking into consideration the relationship between EI and multicultural aspects, and how each culture expresses and defines socioemotional abilities—for example, can an emotionally correct answer for white students be wrong for African American and/or Latino American students? What are the implications of these cultural differences for training school psychologists' EI when confronted with multicultural groups of students?
- understanding how EI develops and how emotional abilities can be improved.

Attaining improvement in these areas will require researchers, educators, and practitioners to work in partnership for the furtherance of knowledge on the racial/ethnic and cultural differences of EI. At present, there are several culturally focused studies (Fernández-Berrocal, Martines, & Extremera, in press; Fernández-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005; Ghorbani, Bring, Watson, Davison, & Mack, 2002; and Martines, Fernández-Berrocal, & Extremera, 2006) which have attempted to distinguish EI across cultures. However, additional research that includes children and adolescents is needed to help answer both measurement and assessment issues. In this regard, several questions need to be answered. First, it is vital to determine the extent to which the operationalization of the various types of intelligence (i.e., EI and MI) is culturally applicable. Furthermore, when assessing the level of intelligences, how should normative references be established? What are the implications for constructing instruments to assess EI for racial and cultural groups?

At the same time, from a clinical perspective, how does a practitioner help an African American student who has had previous experiences with racism and who might behave in a somewhat withdrawn and defensive way in a predominantly white school? In this context, how can various aspects of the student's multiple intelligences (e.g., emotional, interpersonal) be operationalized and assessed? If administered the same EI (or MI) instrument normed predominantly with white students, how can the African American student's score be interpreted? Lastly, what are the implications for training school psychologists' own emotional intelligence when confronted with such behaviors?

Despite the pervasiveness of the Western concept of traditional intelligence, the popularity of EI and other types of intelligences is strikingly broadening the field of education. This movement will perhaps change the educational system to value other types of intelligences beyond the Western ideology that only recognizes traditional IQ intelligence. School psychologists are in an ideal

position to advocate for a systems change that would recognize social-emotional and multiple intelligences. Such an adjustment would bring about a positive impact on academic achievement, assessment, and interventions for racially/ethnically and culturally/linguistically diverse children and youth.

## Multiple Intelligences

As discussed earlier, in recent years Howard Gardner (1983, 1993) has generated a theory of multiple intelligences aimed at helping educators meet the educational needs of each child through the acknowledgment of the various types of observable intelligences.

Fortunately, there is much support for the assessment of multiple intelligences and for the instructional combination of EI and MI in the classroom setting (Hatch & Kornhaber, 2006). This new approach to intelligence has greatly enhanced the way educators and practitioners view teaching and assessment practice (Elias & Arnold, 2006). In addition, the importance of culture in the development of other intelligences has been acknowledged (Brualdi, 1996). Gardner recognized that our culture had identified intelligence too narrowly and hence suggested a theory of multiple intelligences which stressed that individuals cannot be removed from their usual learning environment, as well as the values of their culture, and be asked to perform isolated tasks not experienced previously—tasks that most likely will not be performed again. Multiple intelligences theory offers the educator and the school psychologist a chance to build an educational milieu that is favorable for each student. Gardner (1999, p. 8) defines eight intelligences\*:

1. *logical-mathematical intelligence*: the ability to reason deductively and think logically;
2. *linguistic intelligence*: the ability to use language proficiently;
3. *spatial intelligence*: the ability to create mental images;
4. *musical intelligence*: the facility to be familiar with and compose musical pitches, tones, and rhythms;
5. *bodily-kinesthetic intelligence*: the use of mental abilities to coordinate bodily movements;
6. *intrapersonal intelligence*: the ability to understand one's own feelings, motivation, and intrapersonal feelings;

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\*SOURCE: Gardner, H. (1999). *Intelligences reframed: Multiple intelligences for the twenty-first century*. New York: Basic Books.

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7. *interpersonal intelligence*: the ability to understand the intentions of others;
8. *naturalist intelligence*: the ability to discriminate among living things and to be sensitive to the natural world.

Gardner further accentuates the following:

1. All human beings possess all eight intelligences to varying degrees.
2. Each person has a different intellectual composition.
3. We can improve education by addressing the multiple intelligence of our students.
4. These intelligences are located in different areas of the brain and can either work independently or together.
5. These intelligences may define the human species.

When reviewing the above MI framework, it is important to note that all societies value different kinds of intelligence. Although Gardner proposes eight intelligences, he emphasizes that children will develop those which are most valued by their particular culture. Gardner explains that educators need to think more about both the nature of intelligence and the learning opportunities and activities with which they provide students. He further clarifies that culture also plays an important role in the development of intelligences. Educators and school psychologists are learning that intelligence is a much broader concept, and they must not think unidimensionally about ability. The cultural value placed upon the ability to perform certain tasks provides the motivation to become skilled in those areas. Thus, while particular intelligences might be highly evolved in many people of one culture, those same intelligences might not be as developed in individuals of another culture. School psychologists will recognize that this viewpoint is a challenge for educators. Many educators are set in their routine and find it tedious to prepare particular instructions to meet the needs of their students. This is especially difficult for experienced teachers, content with their long-espoused and practiced instructional methods.

Planning multiple intelligence lessons for a class can be difficult at first. However, the more MI instruction is incorporated into lesson planning, the easier it becomes. School psychologists are encouraged to become familiar with MI instructional methods (see annotated bibliography) to facilitate teachers' MI instruction planning. This can be accomplished through both consultee-centered teacher consultation and/or systematic consultation with the aim of helping to create classroom curriculum and systems-level interventions.



The favorability of using MI instruction becomes even more obvious when student data from MI methodology are linked to the assessment of students' various abilities. Given the limitations of psychometric measures in traditional assessments, the inclusion of MI (and EI) information as part of a comprehensive evaluation can be beneficial for diverse culturally/linguistic and racial/ethnic groups. The inclusion of MI and EI skills as part of a child's overall ability profile can be used as part of a special education evaluation. This is an area in which school psychologists are encouraged to enthusiastically seek to achieve competencies. Collaborative efforts with educators are of vital importance to the success of the practitioner whose goal it is to advocate for the recognition of MI and EI abilities.

## **Incorporating Multiple Intelligences in the Classroom**

Through consultation and in-service training (Conoley & Conoley, 1992; Caplan & Caplan, 1993), consultant psychologists have the opportunity to help teachers adopt MI instruction. As mentioned previously, school psychologists are encouraged to become familiar with the varied MI techniques available. The following is an overview of instructional methods utilized for the common eight MIs by subject matter. Knowledge of these methods can be useful to the school-based psychologist engaged in consultation and classroom observations, where a student's multiple intelligences can be observed in various class lessons.

### **Linguistic Intelligence**

Linguistic intelligence is displayed in the demonstration of strengths in the language arts (e.g., speaking, writing, reading, and listening). Students with this type of intelligence have always been successful in traditional classrooms because linguistic intelligence lends itself to traditional teaching. A linguistic learner likes to read, write, tell stories, do crossword puzzles, analyze language usage, convince someone of their point of view, and understand the syntax and meaning of words. Their strengths include memorizing names, places, dates, and trivia. These student learners have highly developed auditory skills and are generally elegant speakers. They think in words rather than in pictures (Vancouver, 2003). Consideration of linguistic intelligence can be used in any subject area.

Some lesson planning ideas for history are playing "What's My Line?" with figures from history, or debating important issues and decisions

from the past. For math, try writing a series of story problems for others to solve, or having linguistic students explain a problem to the class as others try to solve it. For science, have students write a humorous story using science vocabulary and formulas, create a diary on “The Life of a Red Blood Cell” (from the cell’s perspective), or have a student write all the steps to take to experiment and have other student do the experiment. Maybe conduct a lesson on the digestive system and begin with students reading the text and answering questions (linguistic). Next, students can label the digestive system (spatial), act out the food as it travels (bodily-kinesthetic), play a body parts board game (interpersonal), and finally describe what happens to the food once it enters the body (logical-mathematical). In social studies/geography, a student could read and learn stories, myths, and poetry from other cultures. In gym class, students who are not athletically inclined could write instructions for the use of the different machines used in gym/physical instruction. For language arts, if linguistic intelligence is the student’s strength, have them write a sequel or the next episode to a story or a play or movie. Creating crossword puzzles to help recall vocabulary words is also beneficial, as is playing charades to practice vocabulary words or parts of speech in language arts. Acting out a story that is being read is also enriching for word knowledge recall.

### Bodily-Kinesthetic Intelligence

Bodily-kinesthetic intelligence is the ability to control body movements and handle objects skillfully. These student-learners express themselves through movement. They learn best by touching, moving, interacting with space, and processing knowledge through bodily sensations. They have a good sense of balance and hand-eye coordination. Through interacting with the space around them, they are able to remember and process information. Individuals who are kinesthetic learners tend to be good at physical activities (sports, dance, acting, and crafts) (Vancouver, 2003).

Bodily-kinesthetic intelligence can be used in any classroom. In history, students can re-enact great scenes from the past or hold a historical day by dressing up in costumes and bringing food from that time period. For math, students can use different body parts to measure different things or go out to the football field and make life-size geometric shapes. During fine arts class, students can create a human sculpture or practice impromptu dramatic mime activities. Physical education class, which usually makes use of kinesthetic learner strength, presents many options.

## Interpersonal Intelligence

Interpersonal intelligence is the ability to relate to and understand others. These student-learners try to see things from other individuals' perspectives in order to understand how the other person thinks and feels. They often have an uncanny ability to sense feelings, intentions, and motivations. They are great organizers, although they can resort to manipulations. Generally, they try to maintain peace within group settings and encourage cooperation. These students can use verbal and non-verbal skills to communicate. Interpersonal learners like to have many friends, converse, and join various types of groups. Their strengths include understanding people, leading others, organizing, communicating, manipulating, and mediating conflicts. These learners learn best by sharing, comparing, relating, cooperating, and inter-viewing. Some lesson ideas for interpersonal learners are:

*History*—role-play a conversation with a historical figure or do a historical period jigsaw (where each student learns a part and teaches the other student). Have students conduct group problem-solving activities, or have one student describe a step-by-step solution to another student during math class.

*Language arts*—joint story writing—one student writes a story and passes it onto another student—or read poetry from a different perspective and in different moods.

*Science*—assign group research projects and use lab teams for experiments.

*Fine arts*—sketch your partner with different expressions.

*Gym*—play team-oriented games like capture the flag.

## Intrapersonal Intelligence

Intrapersonal intelligence is the ability to self-reflect and be aware of one's inner state of being. These learners try to understand their inner feelings, dreams, relationships with others, and strengths and weaknesses. Intrapersonal learners like to work alone on individualized projects, and pursue their own interests. Strengths include understanding themselves, focusing inward on feelings/dreams, following instincts, pursuing interests/goals, and being original. They learn best by working alone at self-paced instruction and having their own space. Appropriate lessons for these learners are:

*History*—Get students to write essays such as “If I could be a historical figure, who would I be and why?”

*Math*—Have students bridge math concepts beyond school into real-life situations.

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*Language arts*—Students can write an essay about themselves.

*Science*—Have students reflect on pictures of the solar system and their own life on earth.

*Fine arts*—Students can do a self-portrait from different angles while looking in a mirror.

*Gym*—Discuss how various types of physical exercise make one feel.

## Naturalist Intelligence

*Naturalist intelligence* was introduced in 1996, and is the newest addition to Gardner's original list of seven intelligences. Naturalist individuals thrive on identifying patterns and classifying things in nature, including birds, plants, and stars. From a cultural perspective, naturalist intelligence is very important in hunter-gatherer societies for classifying and recognizing edible vegetation. However, while this intelligence appears to have been more beneficial in a less industrialized society, this is no longer the case. Environmental issues are seen more and more every year as populations increase and resources become scarce. Other individuals who display naturalist intelligence include farmers, botanists, anthropologists, biologists, and librarians (Rose & Nicholl, 1997, p. 10). Charles Darwin was a naturalist who excelled in science, especially earth science, chemistry, and biology. The following examples demonstrate methods for targeting the naturalist intelligence in curricula that appear less likely to appeal to these student-learners.

*History*—The curriculum should recognize how natural events have influenced history (such as the Bearing land bridge or winters during the Revolutionary War).

*Math*—Incorporate mathematical relationships in the natural world. Have students record rainfall over a given time period and compare its relationship to plant growth. Students can track the relationship in a graph.

*Language arts*—Widely open to literature and poetry. Allow students to select a story for reading or a poem (Lazear, 1999).

## Musical Intelligence

Musical intelligence is found in students who are musical thinkers and frequently have songs in their head or create their own songs. These are frequently seen singing, whistling, or humming to themselves while performing an activity. Music has been proven to help in remembering information—the reason for so many catchy jingles in television and radio commercials. Music

is also proven to stimulate the emotional center of the brain and long-term memory is strongly linked to emotions (Rose & Nicholl, 1997, p. 8). Unfortunately, musical intelligence is forgotten in middle and high schools. Musical learners benefit from playing quiet background music, especially classical music, when working or studying. Students with superior musical intelligence will appreciate a larger scope of music, with a greater understanding of specific instruments and tones. Any subject can include music for better understanding. For example:

*History*—Have students listen to music from different parts of the world and think about how these musical cultures have shaped music in the United States.

*Math*—Have students perform to a particular beat (learning multiplication tables, comparing music notes to variables in algebra). Learning an algebraic equation is similar to learning a line of music in that both notes and variables represent a specific number and degree or tone.

*Language arts*—Syllables in poetry can be taught as beats of music.

*Science*—Study vibrations and how sounds are produced; encourage students to think about songs that mention the topic being studied; or explore the sounds involved within a topic (e.g., heartbeat) (Lazear, 1999).

## Logical-Mathematical Intelligence

Logical-mathematical intelligence is commonly emphasized in schools. Although much time is devoted to teaching arithmetic, many schools fail to teach the underlying logic (Battista, 1999, p. 6). Logic is more dependent upon understanding, problem solving, and critical thinking. Students with logical-mathematical intelligence are proficient with numbers, math, science, and systems. Computer programmers, accountants, engineers, and scientists are strong in the area of logical-mathematical intelligence. This intelligence includes the ability to reason in a logical and systematic manner, which supports the fact that detectives are proficient this area. Student-learners tend to question and analyze what they are learning rather than diving into a curriculum (Rose & Nicholl, 1997). Primary logical-mathematical thinkers are seen playing chess or challenging themselves with brainteasers and puzzles during leisure time. Examples of renowned individuals with logical-mathematical ability are Jean Piaget and Albert Einstein. Math and logic should be integrated into every subject. History lessons can use timelines and charts to create a better understanding of a particular era. Time periods should also be compared with one another to find similarities and reasons why history does or does not repeat itself. Comparing and contrasting is an effective way to incorporate the logical-mathematical intelligence in any subject.

Language arts uses this intelligence when critical thinking questions are asked, such as: “What will happen next in the story?” Math and science should concentrate on problem-solving abilities rather than simply teaching arithmetic. The new study of forensic science is an excellent example of the logical-mathematical intelligence that can be used to investigate famous crimes and murders in literature or history.

## Visual-Spatial Intelligence

Visual-spatial intelligence is observed in artists, architects, photographers, and strategic planners. This particular intelligence is the ability to visualize and imagine things in the mind. Visual-spatial ability individuals tend to have a keen sense of direction and are skilled navigators. They benefit from learning maps, charts, graphs, and Venn diagrams. Furthermore, they communicate better through images, especially with complicated topics. Spatial learners can also be seen building models, playing chess, and doodling throughout their notebooks. Examples of famous visual-spatial learners are Picasso and Christopher Columbus. Some classroom techniques include using graphic organizers for younger grades (good for beginning readers to understand the components of a story) and the use of flow charts for extensive directions and if-then statements.

For math, *base-ten blocks* help students learn place values of numbers, as well as creating an understanding of carrying and borrowing in arithmetic. In language arts, Pictionary is an effective method for learning new vocabulary words in history, language arts, and science. Spatial processing takes place in the right hemisphere of the brain. Damage to the right hemisphere will lead to impairment in the ability to find one’s way, to recognize faces or scenes, or to notice fine detail. A student with poor visual-spatial intelligence does not necessarily suffer from brain trauma, but rather relies upon other intelligences more heavily. When the deficiency is trauma related, learners will compensate with linguistic intelligence from the brain’s left hemisphere and reason aloud, but with little success (Dewey, 1993).

In total, there are eight intelligences, and teachers must write a lesson plan for each class period. How can teachers incorporate as many intelligences as possible in one single lesson plan? While the presentation of information from teacher to student is limited to linguistic understanding, intrapersonal inferences, and visual-spatial, the teacher can alter the form of student performance and assessment. The most efficient technique gives students the option to learn through their most prevalent intelligences. If students are able to choose whether they should write, speak, draw, or perform a response, four intelligences are instantly added to the lesson. While it is

difficult to include all the intelligences within one lesson, educators should strive to optimize the alternatives as much as possible. Like students, teachers have their own teaching styles. The difference is that a student cannot change their optimal mode in order to learn. Therefore, it is every educator's responsibility to respond to different learning intelligences within every classroom and, as child advocates, it is the responsibility of school psychologists to encourage teachers to use MI curricula and to keep abreast of culturally sensitive MI instructional methods as potential intervention options when servicing teachers and students within the vehicle of consultation.

School psychologists must recognize that educators who have embraced the theory of MI must first analyze which intelligences they are strong in and how this influences their teaching. Fortunately, many educators have embraced the MI theory (i.e., Lazear, 1999). According to Armstrong (2000), teachers must have an experiential understanding of the theory and have personalized its content. Otherwise, they are unlikely to be committed to using it with any of their students. As discussed elsewhere in this book, teachers may often have only a limited understanding of cultures other than their own. Montgomery (2001) provides a self-assessment for teachers to help them examine their assumptions and biases in a thoughtful and productive way.

Educators must realize that all children have the ability to develop all their intelligences to a level of competency, and the school psychologist can help the educator understand this as well as aid in developing MI instructional classroom lesson plans. It is important to note that at least two or three particular intelligences are usually well developed in an individual. As a general rule, effective MI instruction must comprise efforts to teach students interpersonal and intrapersonal skills in addition to developing their abilities to understand and express their emotions properly in various school and daily activities that involve other intelligences as well (Hatch & Kornhaber, 2006, cited in Elias & Arnold, 2006). The most effective schools that have implemented MI methodology are those in which teachers use techniques that focus on such objectives. These MI instructional efforts have been incorporated in the Schools Using Multiple Intelligences Theory (SUMIT) project. This project identified 41 schools that utilized successful applications of MI instructional methodology and sought to create resources that would support educators' efforts to apply MI appropriately (Kornhaber, Fierros, & Veenema, 2004, cited in Elias & Arnold, 2006). Results of the SUMIT project helped to establish six "compass points" for using MI adequately. These are:

- a culture that is marked by care and respect for others;
- hard work and joy in learning;

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- collaboration among adults;
- readiness built by understanding and exploring MI before implementing it;
- student choices in assessment and curriculum that are both meaningful to them and within the larger culture;
- the use of MI as a tool to develop high-quality work rather than as an end in itself;
- a significant role for the arts in the life of the school (Kornhaber et al., 2004, cited in Elias & Arnold, 2006, p. 39).

One of the many refreshing viewpoints about SUMIT is that it recognizes the need to involve students' choices in assessment and curriculum. This is of particular interest for school psychology practice since it can allow practitioners to help students select culturally fair and meaningful evaluative methods for class assignments. For racial/ethnic and culturally linguistically diverse children and youth, class tests or formal assessment measures that involve responding to multiple-choice responses or Likert-type choices are often not appropriate based on their educational experiences.

Building on these perspectives, some MI methodology strategies for determining a student's intelligence profile are:

- collecting students' work;
- checking grades over a long period;
- reading the kindergarten teacher's report;
- talking with parents (e.g., listing the home activities the child enjoys, hobbies, music playing, drawings, games, reading, sports, jokes);
- asking the students themselves;
- assessing through specially varied activities that use the different intelligences;
- simple observation in class, gym, at play or during sports.

Observing students in student-initiated activities is also recommended. For example, the linguistic child will talk out of turn, while the highly spatial child will be doodling and daydreaming. How does the child engage in free time? What does the child choose to do when allowed to do so? (See Armstrong [2000] for a checklist to use in organizing students' MI.)

It is important that the teacher explain to the class that all students are intelligent, and not just in one way but in eight different ways. The teacher can explain the theory to the students by simplifying the terms for each of the intelligences. For example, instead of using the words "bodily-kinesthetic," the words "body smart," "sports smart," or "hand smart" might be used. Ask questions such as: "How many of you enjoy working in groups at least part of the time?" The response to this question will provide insight into the preferred intelligence.



Once assessed, the educator's responsibility becomes challenging since the next step is to *activate* the different intelligences of the student(s). It is recommended that students be given two or three activities which help them consciously begin to use their particular intelligences (Nicholson-Nelson, 1998). Students can be encouraged to self-assess their strengths or weaknesses in each of the eight intelligences. By activating a wide assortment of intelligences, all students are engaged in the learning process and when teachers create instructional activities that use what students already know and value in their culture, learning becomes meaningful and lasting. Correspondingly, Green (1999) explains that isolated pieces of information unrelated to what makes sense to the student are resisted by the brain and little learning takes place.

## Assessment of Multiple Intelligences

Canino and Spurlock (2000) stress a culturally sensitive assessment of MI. Tests that use paper and pencil are not portable for MI since they only measure two intelligences (linguistic and logical-mathematical). Use of these measures would only tap into two intelligences and ignore the other six types. Lazear (1999) advocates authentic assessment methods for assessing MI. Authentic assessment involves the student in completing tasks and procedures that are created to tap into the student's problem solving for real-world solutions. Assessments are varied and usually employ such methods as portfolios, audiotapes, written reports, teacher-made tests, checklists, videos, rubrics, parent feedback, and self-evaluation. Project-based assessments are also employed. For example, observe a student teach another student about the digestive system. This type of evaluation is exciting because it is often student directed.

Teachers who have adopted MI theory and employed teaching techniques to assess their students often perceive all of their students as gifted, thus reducing the disparity among white and minority student achievement (Campbell & Campbell, 1999). Moreover, students mirror the expectations of their teachers. School psychologists may need to encourage teachers to adopt such assessment methods, especially if they are consulting with veteran consultee-teachers who are set in their ways regarding traditional instructional methods and standardized testing procedures. Quite often, teachers have painstakingly constructed classroom tests and quizzes for testing the particular subject(s) they teach and are reluctant to give them up for what they perceive to be more time-consuming options. MI offers the educator an opportunity to develop an educational environment that is

optimal for each student. Moving beyond the limited view of intelligence testing, the use of better measuring methods, along with the recognition that culture is an important variable for motivation to learn, should assist both the teacher and the school psychologist in evaluating a student's strengths. One attempt to develop a valid and reliable instrument that can tap into MIs is the Multiple Intelligence Developmental Assessment Scales (MIDAS, 1999–2008). As an interest inventory, the MIDAS describes the individual's dispositions and follows Howard Gardner's theory of MI.

How well schools do with MI instructional implications and assessment depends on how educators are prepared to create multiple learning environments for meeting the varying experiences, needs, and interest of all racial/ethnic and CLD children. School psychologists are encouraged to use the Bio-Cultural Model of assessment recommended by Gopaul-McNicol (1998) since it incorporates other intelligences as part of a complete psycho-educational assessment (see Chapter 2). Furthermore, consideration of the adoption of EI and MI methods as a natural part of the assessment process would increase the overall authenticity of the evaluative results, recommendations, and interventions—especially for racial/ethnic and culturally/linguistic diverse student populations.

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## Suggested Readings

### Emotional Intelligence

- Bar-On, R., & Parker, J. (2001). *The handbook of emotional intelligence: Theory, development, and application at home, school, and in the workplace*. San Francisco: Jossey-Bass.
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CASEL, see [www.casel.org](http://www.casel.org).

Elias, M. J., & Arnold, H. (2006). *The educator's guide to emotional intelligence and academic achievement: Social-emotional learning in the classroom*. Thousand Oaks, CA: Corwin Press.

## Multiple Intelligences

Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences* (rev. ed.). New York: Basic Books.

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## Annotated Bibliography

### Emotional Intelligence

Salovey, P., & Sluyter, D. J. (1997). *Emotional development and emotional intelligence: Implications for Educators*. New York: Basic Books. *This book is essential for the study of emotions and EI in schools. It is an edited volume. The first chapter is on emotional intelligence (see Mayer & Salovey, 1997 below). The remaining chapters cover other topics—some closely related to emotional intelligence, others related to emotions more generally. It is an excellent volume, bringing together a number of theoreticians and applied psychologists who are all working on topics of interest to educators.*

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3–31). New York: Basic Books. *Chapter 1 in this book presents the Mayer and Salovey revised model of emotional intelligence, on which their current tests and research are based. Their original 1990 model of emotional intelligence was enlarged, clarified, and better organized. The paper was written for non-psychologists to read.*

Salovey, P., Brackett, M. A., & Mayer, J. D. (2004). *Emotional intelligence: Key readings on the Mayer and Salovey Model*. New York: Dude. *A selection of the most relevant papers on the Mayer and Salovey model of emotional intelligence.*

To obtain the instruments EQ<sub>i</sub> by Bar-On and MSCEIT by Salovey, contact Multi-Health Systems Inc. ([www.mhs.com](http://www.mhs.com)), at MHS Inc, 908 Niagara Falls Blvd., North Tonawanda, NY, 14120-2060 (phone: 1-800-456-3003; fax: 416-492-3343 or 888-540-4484; e-mail: [customerservice@mhs.com](mailto:customerservice@mhs.com)).

## Useful Web Sites

For additional information on the topic of emotional intelligence, see the following Web sites.

Collaborative for the Advancement of Social and Emotional Learning (CASEL: [www.casel.org](http://www.casel.org)) is an international collaborative of educators, scientists, policy makers, foundations, and concerned citizens promoting social and emotional education and development in schools.

*The EQ Directory* ([www.eq.org](http://www.eq.org)) is the internet's directory of EQ/EI/emotional intelligence sites, resources, and organizations.

Dr. David Caruso is the author of the Emotional IQ site ([www.emotionaliq.com](http://www.emotionaliq.com)), which is the homepage for the MSCEIT™ assessment. It describes the assessment in detail and lists research with the MSCEIT™ ability test.

EMONET ([www.uq.edu.au/emonet](http://www.uq.edu.au/emonet)) was established in January 1997. Its purpose is to facilitate scholarly discussion of all matters relating to the study of emotion in organizational settings. EMONET is a restricted list. All subscription requests must first go to Neal Ashkanasy for authorization.

Six Seconds ([www.6seconds.org](http://www.6seconds.org)) is a non-profit organization supporting the development of EQ in schools, homes, and communities. The site has many articles, resources, and free information as well as an online store. The organization publishes the Self-Science curriculum as well as other materials for schools and families, provides teacher, parent, and trainer training, and runs educational programs for children.

### Appendix 3.1: TMMS-24 for School Psychologists

The correction and securing of the score for each of the factors is as follows: sum items 1 to 8 to obtain the score on factor Attention; sum items 9 to 16 to obtain the score on factor Clarity; and, sum items from 17 to 24 to obtain the score on factor Repair. Then look for the scores in Table 3.4. The table shows the cut-point for adults with university education and ideal scores for the school psychologist.

Remember that the veracity and the reliance on the score obtained depend on how honest one is in answering the questions.



**Table 3.4** TMMS-24 Scores for School Psychologists

	<i>Scores</i>
<b>Attention</b>	Needs to improve his/her attention: pays little attention < 24
Ideal scores for the school psychologist	Attention is right 25–36
	Needs to improve his/her attention: pays too much attention > 37
<b>Clarity</b>	Needs to improve his/her understanding < 22
	Understanding is right 23–34
Ideal scores for the school psychologist	Excellent understanding > 35
<b>Repair</b>	Needs to improve his/her regulation < 23
	Regulation is right 24–34
Ideal scores for the school psychologist	Excellent regulation > 35

## Appendix 3.2: TMMS-24 for children (12–17 years of age)

### TMMS-24

The Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995) is basically a measure of perceived emotional intelligence; that is, individuals' beliefs about their own emotional intelligence. In particular, the Trait Meta-Mood Scale is a self-report measure designed to assess individuals' beliefs about their own emotional abilities. This scale addresses three key aspects of perceived emotional intelligence:

*Attention* conveys the degree to which individuals tend to observe and think about their feelings and moods (21 items—e.g., “I pay a lot of attention to how I feel” and “I don’t think it’s worth paying attention to your emotions or moods”).

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*Clarity* evaluates the understanding of one's emotional states (15 items—e.g., “I am usually very clear about my feelings” and “I can't make sense out of my feelings”).

*Repair* refers to the individuals' beliefs about ability to regulate their feelings (12 items—e.g., “Although I am sometimes sad, I have a mostly optimistic outlook” and “When I become upset, I remind myself of all the pleasures in life”).

Specifically, the Trait Meta-Mood Scale is a 48-item Likert-type scale in which participants are required to rate the extent to which they agreed with each item on a five-point scale ranging from strongly disagree (1) to strongly agree (5). The scale appears to have adequate psychometric characteristics. For example, Salovey et al. (1995) reported finding adequate internal consistency (Attention,  $\alpha = .86$ ; Clarity,  $\alpha = .87$ ; and Repair,  $\alpha = .82$ ), and good convergent and discriminant validity for the different subscales of the Trait Meta-Mood Scale. In a sample of 86 undergraduates Salovey et al. (1995) found that Attention was associated with private and public self-consciousness ( $r = .42$  and  $.36$ , respectively), Clarity was negatively associated with ambivalence over emotional expression and depression ( $r = -.25$  and  $-.27$ , respectively), and Repair was negatively associated with depression ( $r = -.37$ ) and positively associated with optimism and beliefs about negative mood regulation ( $r = .57$  and  $.53$ , respectively).

Various studies have analyzed the relation between the Trait Meta-Mood Scale and emotional adjustment variables such as depression, anxiety, and overall physical and mental health. The findings of these studies showed that people with lower scores in Attention and higher scores in Clarity and Repair tended to have better emotional adjustment (Salovey et al., 1995; Gohm & Clore, 2002). For instance, individuals who perceived themselves as skilled at Clarity and Repair reported fewer illnesses (Goldman, Kraemer, & Salovey, 1996), lower levels of depression and social anxiety, and greater self-esteem and interpersonal satisfaction (Salovey, Stroud, Woolery, & Epel, 2002), lower scores in anxiety and depression among adolescents (Fernández-Berrocal, Alcaide, Extremera, & Pizarro, 2006), and higher scores on health-related quality of life in middle-aged women (Extremera & Fernández-Berrocal, 2002).

The Spanish modified version of the Trait Meta-Mood Scale was translated and back-translated by two authors, one of whom did not know the original English text. The final translation was fixed by consensus. The results of factor analysis in previous research (Fernández-Berrocal et al., 1998) were then used to help identify poor items. In this research, the original 48 items were subjected to a principal components analysis with a varimax rotation. Results showed a three-factor solution with Attention, Clarity, and Repair as dimensions, in agreement with Salovey et al.'s (1995)

findings in the English version. The eigenvalues for these three factors were 6.54, 4.46, and 2.86, respectively, together accounting for 58.8 percent of the variance. Items with loadings  $\leq .40$  were then removed, thereby reducing the total number of items from 48 to 24.

The final version of the Trait Meta-Mood Scale asks participants to rate the extent to which they agreed with each item on a five-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5). The final Spanish version consists of three subscales, as in the original, each measuring different aspects of perceived emotional intelligence: Attention (eight items which correspond to items 7, 8, 13, 14, 35, 38, 41, and 46 of the English version), Clarity (eight items, which correspond to items 9, 12, 19, 26, 37, 42, 45, and 48 of the English version), and Repair (eight items, which correspond to items 2, 3, 6, 10, 16, 17, 40, and 43 of the English version).

The internal consistency of the subscales was high as in previous studies of the reliability of the English version (all Cronbach alphas above .85). The Pearson product-moment procedure was used to estimate test-retest correlations. The test-retest correlations after four weeks were satisfactory: Attention ( $r = .60$ ), Clarity ( $r = .70$ ), and Repair ( $r = .83$ ) ( $n = 75$ ).

The intercorrelations between the Spanish modified version of the Trait Meta-Mood Scale subscales and several criterion variables are shown in Table 3.5. The correlations were in the expected direction. The Repair scale was positively correlated with Clarity but not with Attention. Attention was positively associated with the Beck Depression Inventory and the Ruminative Responses Scale. Clarity and Repair showed similar correlations. Both were negatively associated with the Beck Depression Inventory and positively correlated with the Satisfaction With Life Scale. In addition, the Repair scale was negatively correlated with the Ruminative Responses Scale.

In summary, the Spanish modified version of the Trait Meta-Mood Scale had appropriate reliability and the relations with criterion variables were similar to those found with the English version. The Spanish modified version of the Trait Meta-Mood Scale gives us an adequate instrument with which to examine the influence of culture on Emotional Intelligence in Spanish-speaking populations (Fernández-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005).

## Assessment

The correction and securing of the score for each of the factors is as follows: sum items 1 to 8 to obtain the score on factor Attention; sum items 9 to 16 to obtain the score on factor Clarity; and, sum items from 17 to 24 to obtain the score on factor Repair. Then look for the scores in Table 3.6. The table shows the cut-point for boys and girls between 12 and 17 years of age.

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**Table 3.5** Means and Standard Deviations of Scales, Cronbach's Alphas of Subscales of the Spanish Modified Version of Trait Meta-Mood Scale, and Pearson Correlations With Criterion Variables ( $N = 292$ )

<i>Scale</i>	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>
Attention	3.24	.84	.90		
Clarity	3.24	.83	.18*	.90	
Repair	3.30	.80	.07	.35**	.86
BDI	7.00	6.54	.20**	-.24**	-.33**
SWLS	5.02	1.13	-.04	.37**	.41**
Rumination	22.85	5.95	.37**	-.06	-.20**

\*  $p < .01$ ; \*\*  $p < .001$ .

NOTE: BDI = Beck Depression Inventory; SWLS = Satisfaction With Life Scale; Rumination = Ruminative Responses Scale.

Remember that the veracity and the reliance on the score obtained depend on how honest one is answering the questions.

**Table 3.6** TMMS-24 Cut-Points for Children Aged 12–17 Years

<i>Scores</i>	
<b>Attention</b>	Needs to improve attention: pays little attention < 21
	Attention is right 22–33
	Needs to improve attention: pays too much attention > 34
<b>Clarity</b>	Needs to improve understanding < 21
	Understanding is right 22–33
	Excellent understanding > 34
<b>Repair</b>	Needs to improve regulation < 22
	Regulation is right 23–34
	Excellent regulation > 35

### Trait Meta-Mood Scale (TMMS)–24 Spanish Version

#### Instructions

A continuación encontrará algunas afirmaciones sobre sus emociones y sentimientos. Lea atentamente cada frase y indique por favor el grado de acuerdo o desacuerdo con respecto a las mismas. Señale con una "X" la respuesta que más se aproxime a sus preferencias.

No hay respuestas correctas o incorrectas, ni buenas o malas.

No emplee mucho tiempo en cada respuesta.

1	2	3	4	5
Nada de Acuerdo	Algo de Acuerdo	Bastante de acuerdo	Muy de Acuerdo	Totalmente de acuerdo

1.	Presto mucha atención a los sentimientos.	1	2	3	4	5
2.	Normalmente me preocupo mucho por lo que siento.	1	2	3	4	5
3.	Normalmente dedico tiempo a pensar en mis emociones.	1	2	3	4	5
4.	Pienso que merece la pena prestar atención a mis emociones y estado de ánimo.	1	2	3	4	5
5.	Dejo que mis sentimientos afecten a mis pensamientos.	1	2	3	4	5
6.	Pienso en mi estado de ánimo constantemente.	1	2	3	4	5
7.	A menudo pienso en mis sentimientos.	1	2	3	4	5
8.	Presto mucha atención a cómo me siento.	1	2	3	4	5
9.	Tengo claros mis sentimientos.	1	2	3	4	5
10.	Frecuentemente puedo definir mis sentimientos.	1	2	3	4	5
11.	Casi siempre sé cómo me siento.	1	2	3	4	5
12.	Normalmente conozco mis sentimientos sobre las personas.	1	2	3	4	5
13.	A menudo me doy cuenta de mis sentimientos en diferentes situaciones.	1	2	3	4	5
14.	Siempre puedo decir cómo me siento.	1	2	3	4	5
15.	A veces puedo decir cuáles son mis emociones.	1	2	3	4	5
16.	Puedo llegar a comprender mis sentimientos.	1	2	3	4	5

Figure 3.6 (Continued)

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17.	Aunque a veces me siento triste, suelo tener una visión optimista.	1	2	3	4	5
18.	Aunque me sienta mal, procuro pensar en cosas agradables.	1	2	3	4	5
19.	Cuando estoy triste, pienso en todos los placeres de la vida.	1	2	3	4	5
20.	Intento tener pensamientos positivos aunque me sienta mal.	1	2	3	4	5
21.	Si doy demasiadas vueltas a las cosas, complicándolas, trato de calmarme.	1	2	3	4	5
22.	Me preocupo por tener un buen estado de ánimo.	1	2	3	4	5
23.	Tengo mucha energía cuando me siento feliz.	1	2	3	4	5
24.	Cuando estoy enfadado intento cambiar mi estado de ánimo.	1	2	3	4	5

SOURCE: This material originally appeared in Salovey, P., Mayer, J. D., Goldman, S., Turvey, C., & Palfai, T. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In J. W. Pennebaker (Ed.) *Emotion, disclosure, and health* (pp. 125–154). Washington, DC: American Psychological Association. Translated and adapted with permission of the publisher and the author. The American Psychological Association is not responsible for the accuracy of this translation.

### Trait Meta-Mood Scale (TMMS)

Please read each statement and decide whether or not you agree with it.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

1.	I don't pay much attention to my feelings.	1	2	3	4	5
2.	I don't usually care much about what I'm feeling.	1	2	3	4	5
3.	It is usually a waste of time to think about your emotions.	1	2	3	4	5

Figure 3.6 (Continued)

4.	I don't think it's worth paying attention to your emotions or moods.	1	2	3	4	5
5.	I don't let my feelings interfere with what I am thinking.	1	2	3	4	5
6.	I think about my mood constantly.	1	2	3	4	5
7.	I often think about my feelings.	1	2	3	4	5
8.	I pay a lot of attention to how I feel.	1	2	3	4	5
9.	I am usually very clear about my feelings.	1	2	3	4	5
10.	I am rarely confused about how I feel.	1	2	3	4	5
11.	I almost always know exactly how I am feeling.	1	2	3	4	5
12.	I usually know my feelings about a matter.	1	2	3	4	5
13.	I am often aware of my feelings on a matter.	1	2	3	4	5
14.	I can never tell how I feel.	1	2	3	4	5
15.	Sometimes I can't tell what my feelings are.	1	2	3	4	5
16.	I can't make sense out of my feelings.	1	2	3	4	5
17.	Although I am sometimes sad, I have a mostly optimistic outlook.	1	2	3	4	5
18.	No matter how badly I feel, I try to think about pleasant things.	1	2	3	4	5
19.	When I become upset I remind myself of all the pleasures in life.	1	2	3	4	5
20.	I try to think good thoughts no matter how badly I feel.	1	2	3	4	5
21.	If I find myself getting mad, I try to calm myself down.	1	2	3	4	5
22.	I never worry about being in too good a mood.	1	2	3	4	5
23.	I don't have much energy when I am happy.	1	2	3	4	5
24.	When I'm angry, I usually let myself feel that way.	1	2	3	4	5

**Figure 3.6** The Trait Meta-Mood Scale (TMMS) in Spanish and English

SOURCE: *Emotion, Disclosure, and Health*, pp 152–154, Copyright © 1995 by the American Psychological Association. Adapted with permission. Salovey, P., Mayer, J. D., Goldman, S., Turvey, C., & Palfai, T. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In J. W. Pennebaker (Ed.) *Emotion, disclosure, and health* (pp. 125–154). Washington, DC: American Psychological Association.

