

CHAPTER 2

The nature, origin, development and appraisal of emotional competencies in middle adolescents within the school context.

"Emotion animates life. It accounts for the depths and peaks of daily existence, the memorable richness and darkest moments of individual experience"

(Saarni, 1999:7)

2.1. INTRODUCTION

Experiencing and expressing emotions are integral parts of life; it is the touchstones of human experiences. Yet for many people emotions remain perplexing and difficult to express constructively. The world is multifarious, intricate and multidimensional and emotions guide the middle adolescent to make sense of the world. Emotions give coloration and meaning to everything experienced in life. Unfortunately in this technologically focused society, individuals are becoming desensitized towards their emotions. Emotions are often viewed as unnecessary because it interferes with a high paced life style. Individuals are becoming handicapped in their attempts to express, identify and explain the meaning they attribute to their emotions. Individuals disown their emotions to avoid the discomfort of self-reflection that might lead to necessary personal change.

Barnes and Thagard (1996:1) reiterate this view by saying "*emotions are often conceived as irrational occurrences that cloud judgement and distort reasoning*". The difficulty in identifying, expressing and managing emotions applies to the broader society, because the importance of emotions and emotional competencies are often discarded and not directly taught. However, middle adolescents indirectly learn through the positive and negative example set by

parents, teachers and significant adults in their lives on how to deal with their emotions. *"Although adolescence is not inevitably a period of storm and stress, it is usually characterized by intense experiences of extreme emotions, emotional outbursts or at least emotional tension"* (Gouws et al., 1994:94). The emotional rollercoaster that middle adolescents experience in this developmental phase necessitates the school to address the development and enhancement of emotional competencies that will empower the middle adolescent to rebound against the emotional onslaughts of life.

The exploration of this chapter will focus on the development and appraisal of emotional competencies in middle adolescents as an aspect of resilience and consequently the immense importance that emotions play in being able to adapt to changes and adversities.

2.2. Defining terms related to emotional competence

Although the terms, feelings, emotions and mood are proliferated together because they are used interchangeably in every day life, their meanings are different. Feelings comprise of a conscious perception or intuition of what is being experienced as well as a palpate sense. *"Feelings are defined as a physical sensation connected with sight, hearing, taste or smell, a general state of consciousness related to a sentiment; attitude or opinion. Feelings create the capacity for emotion"* (Norwood, 2001:1).

Emotions incorporate feelings but it also consists of mental processes and components such as physiology, cognition, expressiveness and subjective meaning attribution. Heath's (2001:12) understanding of emotion is as follows: *"consciousness has three modes, those of will, mind and feeling. When will is united with mind it generates desire. When feeling is united with mind it generates emotion. The feeling energises a conceptual response to a stimulus to which the two values of good or bad is attributed"*. Norwood (2001:1) on the other hand defines emotion as *"an affective state of consciousness, which is*

distinguishable from cognitive and volitional states of consciousness and is usually, accompanied by certain physiological changes- a product of mind and spirit". It can therefore be inferred that emotions involve responsiveness to an evocative stimulus, which results in physiological reactions, expressive verbal and non-verbal communication as well as motivated actions. The middle adolescent perceives environmental stimuli and then interprets and evaluates it through cognitive processes to create a biological and behavioural reaction to the stimuli.

Another term, which is often confused as being a synonym of the term emotion, is mood. Scherer (2001:7) describes mood as "*a state that resemble emotion in terms of the feeling quality but which are not based on specific events*". If a middle adolescent for example experiences a "depressed mood", it could be due to an endocrine imbalance and therefore independent of a specific event to elicit this feeling. The distinction between the terms is valuable because this knowledge will enable the teacher to assist the middle adolescent discriminate between the physical sensations they experience and why it happens (feeling) as well as how it differs from emotions and the behaviour related to the emotion.

There has been speculation about the preverbal order in which emotions occur as well as the nature of the emotions by various researchers such as Schachter, Singer, Lazarus, Cannon, Bard, James, Lang and Plutchik and Cacioppo (1999:6). They are of opinion that the major categories of emotion consist of joy, sadness, fear, anger, disgust, shame and guilt. Lawson (2002:1) refers to Dr Paul Ekman's work as an expert in the field of emotion, who has identified four core emotions that are universally experienced namely fear, anger, sadness and enjoyment. Based on this research it can be concluded that all human beings possess core emotions such as fear, joy, anger, sadness, attraction and shock that occurs before any meaning is given cognitively, psychologically or before any action is taken. Other secondary emotions can occur based on a sense of

self and a set of standards obtained through acculturation according to which the reaction to events or environmental stimuli is cognitively evaluated.

Knowledge regarding the core emotions is useful in developing activities (labelling, expanding vocabulary and categorising emotions) in the Resilience Enhancement Kit, to teach middle adolescents to identify emotions. Knowledge of the different emotions can be included in the Resiliency Scale for learners and could include questions such as "If I am emotional, I can usually tell what emotion I am feeling such as fear, happiness, sadness or anger". Due to the abstract nature of emotions, continuing research will enrich the understanding of the concept.

The research of emotions has been an area of interest for researchers from the early work of philosophers such as Plato and Aristotle in the 17th and 18th centuries. *"The measurement of emotions remains a bustling research area. The interplay among social, cognitive and biological processes in emotions is becoming increasingly tractable and emotional phenomena are now fruitfully studied drawing upon theories and methodologies that require collaboration among social, cognitive, developmental, clinical and neuroscientists."* (Cacioppo, 1999:2). Research has been undertaken by various disciplines (medical, social, psychological and even interactive computer technology) to explore the nature, origin and function of emotion.

2.3. Nature and origin of emotions

Mwamwenda (1995:1) is of opinion that psychology is a science that examines observable behaviour and the mental processes of the mind. A holistic discussion of emotions will not be complete without the insight into where emotions originate. Only a brief overview will be given of the biological components of emotions, as it is not the main focus of this research. The functional capacity of the brain can change behaviour including primary reaction tendencies, stress tolerance and adaptive resources. Knowledge about how the

brain functions and how it processes emotional information can assist teachers and Educational psychologists in designing learning experiences that are meaningful to the middle adolescent.

Engle (2004:233) reiterates this view by stating that learning is an activity of the brain and that neuroscience research should inform on the practice of teaching by having an understanding of how the brain works and how information is processed. Teachers who understand the origin of emotions and how they relate to everyday functioning can modify classroom practices to accommodate the middle adolescents' changing emotional state and assist them in managing their emotions so that they are open to new learning experiences.

Lowry (2002:1) suggests that the right hemisphere of the brain is dominant for comprehension and expression of emotion as well as for negative emotions while the left brain hemisphere tends to be dominant in positive emotions. Emotions can be incorporated in the way learners use the left and or right side of their brains (learning style) when developing learning material and therefore the location of the origin of emotions in the brain is important. *"Studies of the brain's emotional modules, the sub-cortical limbic system, show that simultaneously with learning a new behaviour or concept, we also 'learn' an attached emotion, usually related to our feelings about the context. Knowledge of how the brain works may have implications for assessment in school, for example under examination conditions stress can produce emotional climates quite different from those in which the learning to be tested occurred and has an effect on the student"* (Geake, 2003:9).

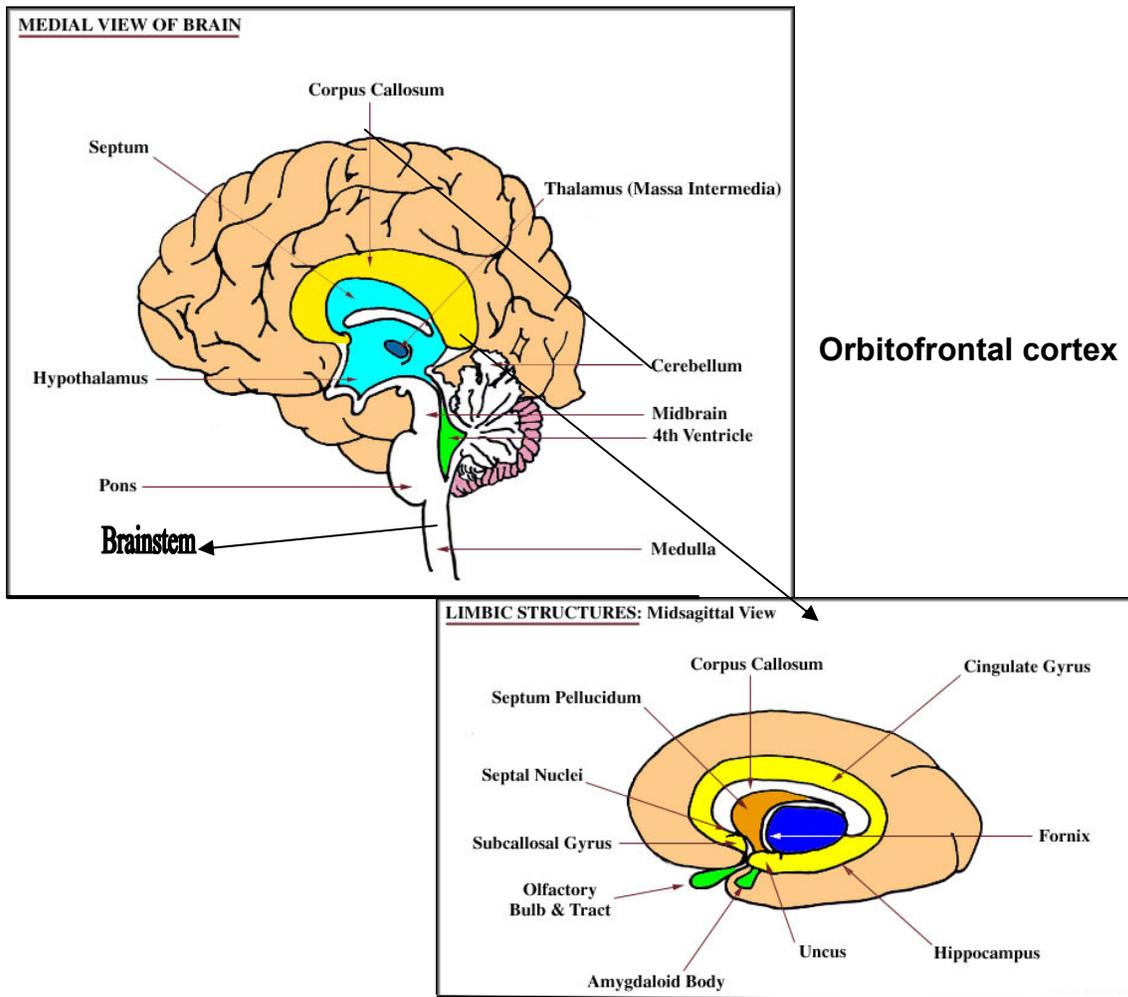
Emotions emanate in the brain, specifically in the limbic system. The limbic system is a small structure located in the middle of the brain between the lower center brainstem and the higher center or cortex. Lawson (2002:1) accentuates the importance of the limbic system for memory, thinking and learning as well as the impact of positive memories and reactions to the event (emotional state) which will affect learning. McCaffrey (2001:2) agrees with the opinion of Lawson by affirming that the limbic system is involved in recent memory, emotion,

motivation and reinforcement and responses mediated by the limbic system include pleasure, satiety, guilt, punishment, inhibition, alertness, excitement, and autonomic activity.

2.3.1. Areas in the brain involved with emotional competence

McCaffrey (2001:3) provided the following image of the areas in the brain where emotions originate:

Illustration 1 (With permission: Appendix B)



2.3.1.1. Prefrontal area

The frontal lobes seem to have an important role in meaning middle adolescents attribute to situations and producing the appropriate emotional reaction. "*The prefrontal lobe's intense bi-directional connections with thalamus, amygdala and*

other subcortical structures, account for the important role it plays in the genesis and specially, in the expression of affective states. When the pre-frontal cortex suffers a lesion, the subject loses his sense of social responsibility as well as the capacity for concentration and abstraction" (Amaral & De Oliveira, 2000:5). The pre-frontal area of the brain is the regulator of the different areas in the brain involved with emotion. Nunley (2004:4) concurs and states that the prefrontal cortex plays the role of arbitrator in making critical decisions and determine behavior. She explains that it is the prefrontal cortex that regulates the acting out or curtailing of emotions as well as reaction to immediate gratification. She is of opinion that maturity plays a significant role as this area takes about 20 years to develop fully. Hence, adolescents may have problems quickly sizing up risks and making good long-term decisions. The brainstem is another area in the brain involved with emotion.

2.3.1.2. Brainstem

The brainstem seems to be responsible for the emotional expressions of anger, joy and sadness. According to Amaral and De Oliveira, (2000:5) the brainstem is associated with survival and the emotions related to it (for example aggression). The amygdala and hippocampus are areas involved with generating emotion.

2.3.1.3. Amygdala and Hippocampus

The amygdala is responsible to assess the emotional importance of the stimuli experienced. *"The amygdala plays an important role in the mediation and control of major affective activities like friendship, love and affection, on the expression of mood and, mainly on fear. The hippocampus allows the adolescent to compare the conditions of a present threat with similar past experiences, thus enabling it to choose the best option, in order to guarantee its own survival."* (Amaral et al., 2000:1). According to Cacioppo (1999:6), who agrees with this above mentioned view also feels that the hippocampus appears to be especially important in the explicit learning of emotional expectancies, whereas the amygdala appears to be important in the implicit emotional conditioning. The

growth spurt during middle adolescence is can be seen in this area of the brain. The hypothalamus forms part of the section in the brain near the amygdale and hippocampus.

2.3.1.4. Hypothalamus

The hypothalamus plays a role in emotion linked to pleasure, rage, aversion and loud laughter (Amaral et al., 2000:2). The hypothalamus is involved with the basic survival needs of human beings. *"One of the frustrations with adolescents is due to the fact that hormones, environment, and learning, make the hypothalamus region of the brain a 'hot area' in adolescent brains. The basic survival drives of the hypothalamus don't always agree with the social structure, morals and safety of society. Furthermore, the hormone, oxytocin, found in the brain during romantic relationships, tends to settle and stimulate the hypothalamus during the beginning stages of the relationship. Anyone working with adolescents knows that they are always in the midst of 'new love', which hampers logical decision making"* (Nunley, 2004: 2). McCaffrey (2001:6) agrees with the affect the hypothalamus has on adolescent behaviour and also links the hypothalamus with the regulation of hormones in the middle adolescent, which has an effect on their emotion regulation.

2.3.1.5. Cingulate gyrus

The cingulate gyrus is located in the middle side of the brain between the cingulate sulcus and the corpus callosum, the bundle connecting the two cerebral hemispheres. Amaral and De Oliveira (2000:3) declare that the gyrus frontal part coordinates smells and sights with pleasurable memories of previous emotions. This region is also involved with the emotional reaction to pain and in the regulation of aggressive behaviour.

2.3.1.6. Papez circuit

In 1937, James Papez discovered a circuit that forms the basis of emotion in his studies of brain-damaged middle adolescents (Amaral, 2002:3). He proposed

that emotion is not a function of any specific brain centre, but of a circuit that involves four basic structures that are interconnected through several nervous bundles. These interconnected bundles include the hypothalamus, the thalamic nucleus, the cingulate gyrus and the hippocampus. This Papez circuit, acting in a harmonic fashion, is responsible for the functions of emotion as well as for its peripheral expressions.

The areas affecting emotion in the brain helps the teacher and Educational psychologists understand how to create learning experiences that can relate to the middle adolescent's emotional state and will enable the learner to harness emotions in the learning process. Nunley (2004:5) feels that adolescents still need strong adult guidance to help them with decision-making throughout the developmental years and that time and good role models will allow the brain to mature to match the growth of the body.

Therefore it is the responsibility of significant role players in the school context to guide the middle adolescents in developing competencies that will help them regulate and manage their emotions and decisions they make. Continuing neurobiological research into the amazingly complex human brain will surely unlock more of the mysteries regarding the origin of emotions in the future. Various theories of emotion have also developed to elucidate the nature and origin of emotion.

2.4. Theories on emotion

Emotion consists of various modalities, such as facial expression, physiological arousal, behavioural responses, subjective feelings and cognitive processes. The sequence in which these modalities occur resulted in the development of different theories on emotion. William James and Carl Lange suggested the first influential theory on emotion in 1884. *"William James proposed that a person, after perceiving a stimulus that somehow affected him or her, endures disturbing physiological changes such as palpitations, shortness of breath, anxiety, etc. It is precisely the acknowledgement of these symptoms (by the brain) that creates*

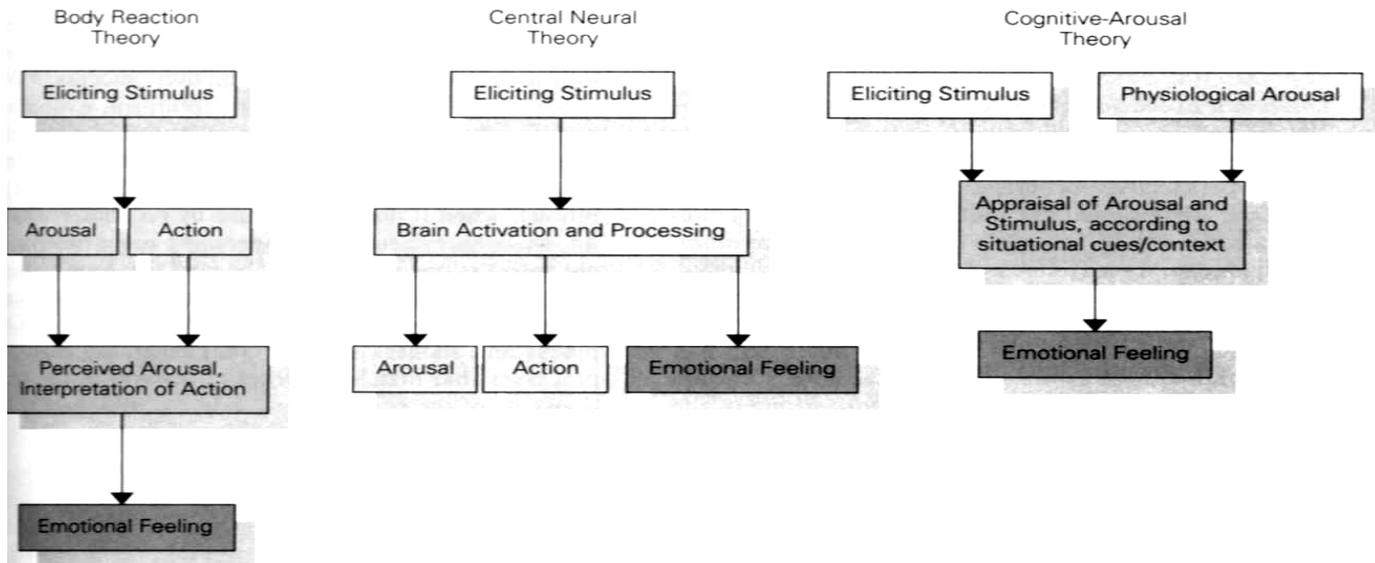
emotion" (Amaral et al., 2000:6). Perceiving a stimulus (a threat) causes automatic arousal and actions (running away) that lead to the experience of a specific emotion (fear). According to the James-Lange theory, the emotion experienced depends on the specific behavioural changes that occur. The theory is inadequate because it does not take into account that emotions can be triggered directly by an evocative situation and not only indirectly through behavioural and physiological reactions to stimuli and that not all emotions lead to reactions.

In 1929, Walter Cannon refuted the James-Lang theory and proposed another, which was modified by Phillip Bard and became known as the Cannon-Bard theory. *"The Cannon-Bard theory states that, when a person faces an event that somehow affects him or her, the nervous impulse travels straight to the thalamus where the message divides. One part goes to the cortex to originate subjective experiences like fear, rage, sadness, joy, etc. The other part goes to the hypothalamus to determine the peripheral physiological changes (symptoms). According to this theory physiological reactions and emotional experience occur simultaneously" (Amaral et al., 2000:6). Thus, an emotional stimulus produces two concurrent reactions, arousal and experience of emotion, which do not cause each other. In other words, the level of physiological arousal or behavioural responses does not determine the emotions. The theory lacks clarity on how the middle adolescent decides whether the situation perceived is emotionally significant and merits any reaction.*

The theories of Lazarus and Schachter-Singer shifted their focus on the influence that cognitive factors have on emotion. Zimbardo, (1992:466) describes the Lazarus-Schachter theories in terms of the joint effect between physiological arousal and cognitive appraisal, both parts necessary for an emotion to occur. Sensory experiences lead to emotion only when the stimuli are cognitively appraised as having personal significance and grow out of ongoing transactions with the environment. This theory presents the problem of assessing a middle

adolescent's cognitive appraisals of a situation because the person might not be consciously aware of the process followed to attribute meaning to a situation and emotion is not solely dependent on cognitive appraisals. The following diagram is a representation of the above-mentioned theories provided by Zimbardo (1992:467).

Diagram 2 (With permission: Appendix B)



It can be concluded from the various theories discussed that emotion can result from an interactive play between the factors. A synthesis of the theories could provide a more holistic perspective on emotions. A synthesis of the theories presented could be construed in the following way: firstly an external stimulus or situation is noted and appraised for its relevancy for the middle adolescent. Secondly, the middle adolescent attributes a favorable or unfavorable meaning (experience a subjective feeling) to the situation or stimulus based on the appraisal. The middle adolescent experiences physiological arousal and displays peripheral expressions. Finally, a behavioural response will follow if the situation or stimulus requires action. These factors need not follow in this exact order because emotions can occur expeditiously.

The theories of emotion will be incorporated in the Resiliency Scale for learners with questions such as "when meeting new people I know why I feel my heart

beating, stomach cramps, a lump or dryness in my throat or shortness of breath" or "I can easily tell what other people are feeling by looking at their faces and body language". The experience of emotions can be highly confusing to the middle adolescent because several emotions may be experienced at the same time between which they can often not discriminate.

Middle adolescents are characterized by being easily excited, having boundless energy and their gregarious nature are expressed through laughter and noise. However their emotions can also be easily upset by outside influences. Mwamwenda (1995:75) concurs with the idea that parents, peers, teachers and society can influence middle adolescents' emotions and states that outbursts of anger and physical violence are common. He feels that the factors responsible for adolescent's anger can be being talked about, being teased, relationship with the opposite gender, unfairness and parental interference in their associations.

Therefore, knowledge of how emotions originate can assist the teacher and Educational psychologists in making the middle adolescent aware of why they appear to have "swings" in emotion. If the middle adolescents know what triggered the emotion, the meaning they attribute to the situation and how they respond to it, the management of emotions will become easier. The following table provided by Plutchik (1996:30) is an example of the interplay between the stimulus, emotion and reaction process.

Table 2 (With permission: Appendix B)

stimulus event	cognition	feeling state	overt behavior	effect
threat	"danger"	fear	escape	safety
obstacle	"enemy"	anger	attack	destroy obstacle
gain of valued object	"possess"	joy	retain or repeat	gain resources
loss of valued object	"abandonment"	sadness	cry	reattach to lost object
member of one's group	"friend"	acceptance	groom	mutual support
unpalatable object	"poison"	disgust	vomit	eject poison
new territory	"examine"	expectation	map	knowledge of territory
unexpected event	"what is it?"	surprise	stop	gain time to orient

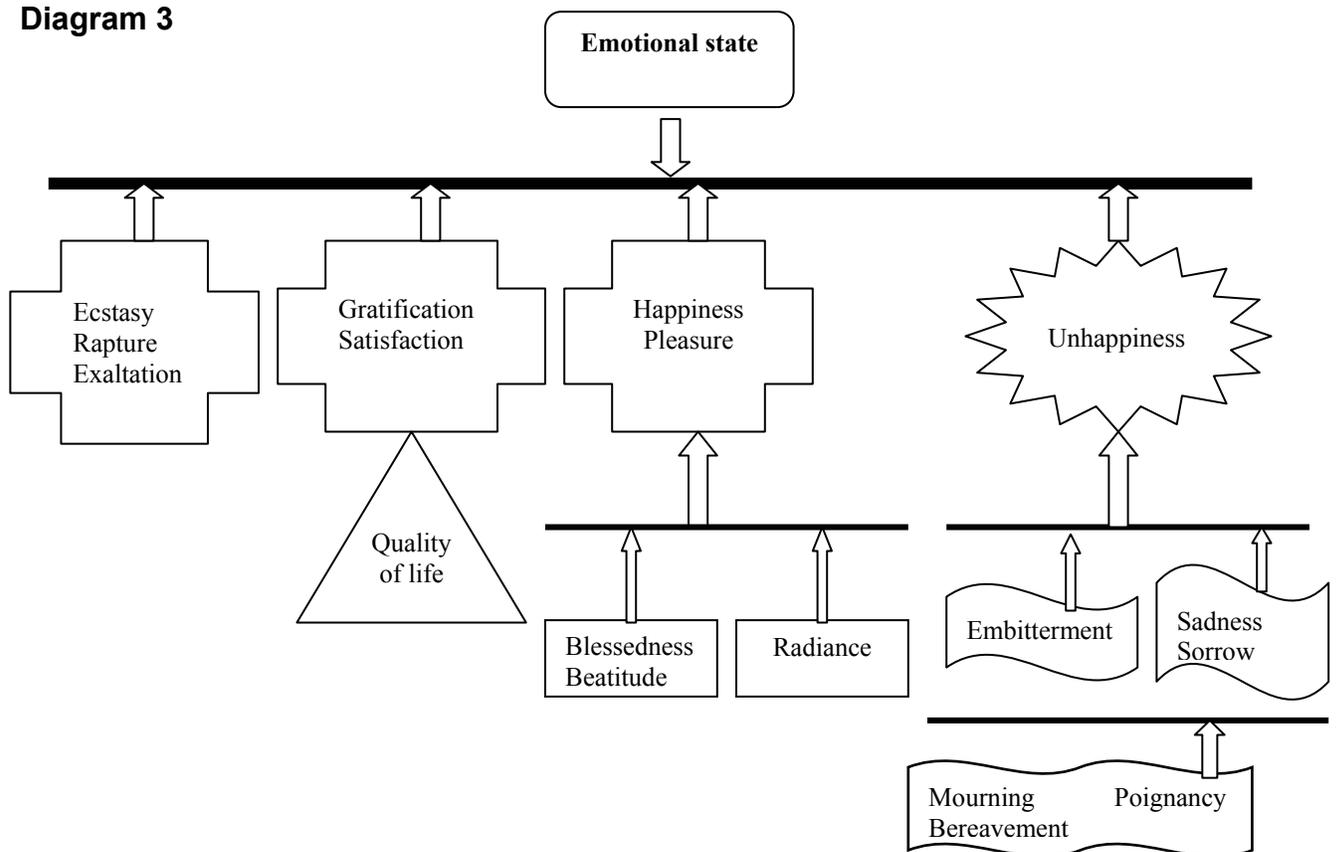
This table indicate that emotions are as intricate and complex as the middle adolescents who experience them and can have various sources of origin and reactions related to the emotion. It is important for the middle adolescents to know how their emotions affect their behaviour because the knowledge can assist the learner in managing their emotions more effectively. In order to fully understand and appreciate the effect that emotions have on a middle adolescent's life, it is important to comprehend the intricate composition and structure of emotions.

2.5. Emotional structure

2.5.1. Composition of emotions

The middle adolescent's emotional state forms a foundation of neutral equilibrium from which positive (appetition) and negative (aversion) emotions arise in a continuous way when triggered by an emotion-provoking situation. The ontological classes of attributes that denote emotional states of middle adolescents as described by Virtual Wordnet Concepts (2002:2) can be illustrated in the following way:

Diagram 3

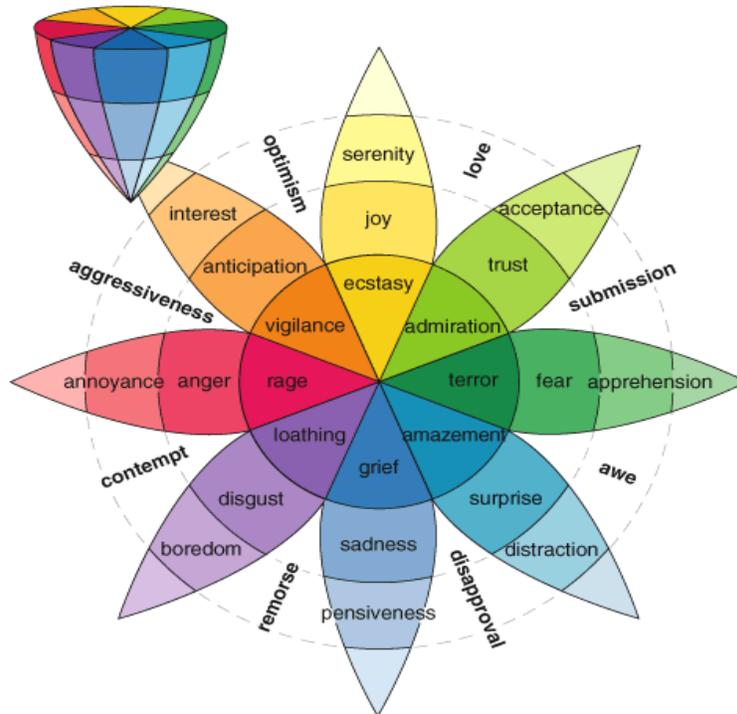


The ebb and flow of emotions arising from the information obtained through the rendition of significant occurrences and recollections of similar situations impacts on the middle adolescents' emotional state. The emotional state forms the state of mind where psychological attributes (ascribing personal significant meanings to situations), biological attributes (physiological reaction to events), value attributes (favourable and unfavourable) and the emotional tone (classification of what is experienced) are given. "*Physiological systems provide the machinery of response to internal and external stimuli by sending signals that activate or inhibit emotional responding. Physiological arousal includes neural, hormonal, visceral and muscular changes. The feelings include both a general affective state (good-bad and positive-negative) and a specific feeling tone such as joy or disgust. The cognitive processes include interpretations, memories and expectations*" (Zimbardo, 1992:460). Therefore, in making the learners aware, through the Resilience Enhancement Kit, that their interpretation and meaning attribution to situations influence their ability to manage emotions effectively empowers them to become more resilient by testing their interpretations and meaning attributions to reality and making the necessary adjustments to faulty perceptions.

The emotions differ in their intensity, the manner of arousal to act and the combination of different emotions experienced. A middle adolescent's emotions are continually in transition. Whichever emotion is currently manifested in the middle adolescent's consciousness eventually diminishes only to be transposed by another emotion. Emotions are dynamic in that the core emotions previously discussed namely fear, joy, anger, sadness, attraction and shock can lead to emotional blends and complementary pairs as well as binaries. Plutchik (1996:1) created the colour-wheel theory of emotion that illustrates this view. His three-dimensional model describes the relationship among emotional concepts, which are homogeneous to the colours on a colour wheel. The vertical expanse of the cone represents intensity, and the circle represents degrees of similarity among the emotions. The eight sectors denote that there are eight primary emotion

dimensions arranged as four pairs of opposites. The emotions in the empty spaces are the primary dyads—emotions that are a blend of two of the primary emotions. The following is a representation of Plutchik's (1996:32) three-dimensional circumplex model of emotion:

Illustration 2 (With permission: Appendix B)



Educational psychologists know that the middle adolescent's developmental phase is characterized by intense emotions that revolve around the self. Insight into the middle adolescents' intensity regarding their emotions are reflected through the expressions that they reveal towards adults for example that no one else has ever felt as they do or suffered so much (if punished), loved so deeply (if a relationship has ended) or been so misunderstood (if they are not allowed to do as they want). Zimbardo (1992:464) refers to Carroll Izard who corroborated the idea of emotional blends, while Heath (2001:3) further developed this theory for binaries and compound emotions. According to his theory, all emotions form into complementary pairs, or binaries. The binary characteristic means that one emotion can easily transform into its opposite. Some emotions are compound

and comprise of two simpler emotions. Examples of emotions that are binary to each other according to Heath (2001:3) could include:

- ♣ Fear-anger
- ♣ Love-hate
- ♣ Jealousy-narcissism
- ♣ Pride-guilt
- ♣ Vanity-self-pity

Examples of emotions are compound and consist of two smaller emotions according to Heath (2001:3) are:

- ♣ Jealousy (self-pity + love)
- ♣ Guilt (self-pity + self-hate)
- ♣ Pride (hatred of others + vanity)
- ♣ Anxiety (fear + vanity)

These theories on emotions assist in disseminating the identification and classification of emotions for learners. Cron (2001:66) is of opinion that the ability to articulate emotions as well as to accurately recognize and label those emotions with appropriate descriptive adjectives is important for mental health. However, he states that there are few suggestions from literature regarding methods to support the identification of emotions or to teach labels (descriptive adjectives) that name the emotions being experienced. Middle adolescents often do not have the necessary emotional vocabulary to express how they feel or to label their emotions correctly. Plutchik (1996:1) agrees with Cron about adolescents' inability to discriminate between the differences in emotions and as a result middle adolescents often resort to metaphors in an attempt to describe the emotion. He refers to the phrases "blowing off steam," "hating someone's guts," "pain in the neck," "lump in the throat" and "a broken heart" as examples of metaphors for emotions.

The identification and management of emotions require that the middle adolescent be taught what primary and secondary emotions are as well as how they are related and labeled. The questions related to intensity and emotions in the Resiliency Scale for learners could be construed as follows: "I am able to tell the difference between the intensity (degree) of my emotions for example being slightly irritated and very angry" and "I am comfortable in situations where people

show strong emotions such as love, anger or sadness. The above-mentioned theories are also useful in the development of the Resilience Enhancement Kit because the emotions can be illustrated with drawings. The relationships of emotions can be colour co-ordinated to convey levels of intensity, descriptive labels can be given to enhance emotional vocabulary and emotions can be categorized that are related. The way middle adolescents ascribe meaning based on motifs can be discussed with the middle adolescents.

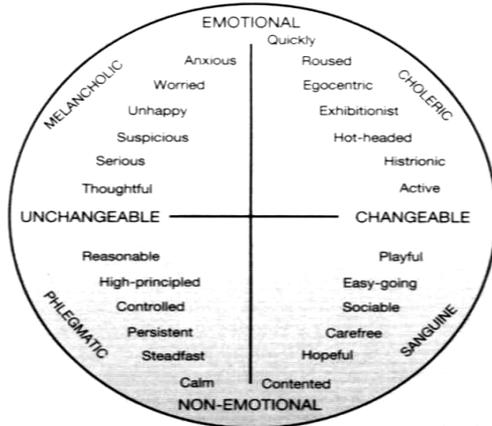
Heath (2001:4) suggests that emotions are based on motifs. "*The motif of guilt and pride is punishment or humiliation while the motif for jealousy and narcissism is responsibility. The motif for self-pity and vanity could be viewed as a cry for help. The motif of anger and fear is domination and that of love and hate is identity. The motif of resentment and bitterness is disgust and that of anxiety is oppression by one's conscience*". It can be concluded from the theories of Plutchik, Izard and Heath that emotions are multifarious in nature consisting of core emotions. Based on the intensity of the emotions felt as well as the motives of the middle adolescent the primary emotions can be attenuated into a myriad of secondary emotional blends, variations and nuances. The middle adolescents' mood, emotional composition and activation level are regulated by their temperament, which forms part of the biological basis of personality.

2.5.2. Temperament

Temperament is a significant dimension of personality. Hippocrates first developed a theory of temperament, which was further explored by Freud, Allport and Eysenck. The middle adolescents' temperament has an influence on their resilient functioning because their level of reactivity towards stressful situations and problems can be either an asset or a barrier. Some middle adolescents have a warm and happy demeanour and may utilize family and friends as assets when things get tough, while others are more cautious and shy and may rather focus on internal strengths to help them rebound. Some middle adolescents appear to be strong-willed and this characteristic can be an asset if it is applied to an

appropriate situation for example not being negatively influenced by the peer group, however they can also be difficult to please which can be a barrier if they cling to negative emotions. The middle adolescents' temperament influences their level of hardiness against adversities and affects aspects related to resilient functioning such as their level of optimism, risk taking and ability to draw upon their personality style to solve problems. *"To different people, in the same situation, different modes of temperamental responses appear natural and even inevitable. The characteristics that seem to underlie the resilient individual are a sense of control, challenge and commitment. These three characteristics have been collectively defined as 'the hardy personality" (Joseph, 1994: 30).* The middle adolescents' temperament influences the ease with which they develop resilience. According to Mayer and Sutton (1996:190), it was Kant and Wundt who classified the various temperaments into a dimensional typology.

Illustration 3: (With permission: Appendix B)



Wundt's two dimensional representation of temperament



Eysenck's two dimensional representation of temperament

Mayer and Sutton (1996:191) state that Wundt conceptualised the typology in terms of two dimensions of emotionality. The swiftness of change dimension, which is labelled as changeable/ unchangeable, refers to how quickly a middle adolescent's emotions change. Eysenck relabelled it as introversion-extraversion. The second dimension of strength labelled emotional / non-emotional refers to the intensity of a middle adolescent's emotions. This dimension was later relabelled as emotional stability. Emotional stability refers to more than just the middle adolescent's emotional composition. It refers to the way middle adolescents cope (resiliency) and responds emotionally to authentic and imagined circumstances within their unique personality or temperament types.

An understanding of the different types of temperament that middle adolescents have is useful for the teacher and Educational psychologists in the school context because it will enable them to group the learners together whose temperaments compliment each other in order for group work to be optimized. The unique contribution and role that the different middle adolescents with their unique temperaments can bring to the group can be highlighted for example the extrovert or Sanguine personality can be the spokesperson of the group while the introverted or Phlegmatic personality can assimilate all the ideas from the members of the group. Knowledge regarding temperaments can be utilized in the Resilience Enhancement Kit where the middle adolescents are asked to work in groups, in pairs as well as participate together in games. They are also guided to respect diversity and learn from each other regarding the way that they differ in dealing with adversities as well as how to show support and respect (empathy).

Mwamwenda (1995:6) reinforces the importance that Educational Psychology brings to the understanding of individual differences that allows teachers to prepare lessons suited to learners needs and on their personality characteristics. The information provided by the Educational Psychology field can also assist the teacher to help learners to attain the achievement expected of them by modifying

the teaching approach. Another aspect related to emotional competency where Educational Psychology can inform upon is middle adolescents' emotional intelligence.

2.5.3. Emotional intelligence

A theory closely related to resilience, emotional and social competence is Emotional intelligence as proposed by Daniel Goleman. *"The development of resilience, emotional intelligence and social competencies in young people is not only linked to long term occupational and life success but is also associated with the prevention of substance abuse, violence and suicide. Resilience, emotional intelligence and social competencies can be best developed as a set of habits"* (Fuller, 2001:41). Emotional intelligence is the ability to navigate life by expressing, appraising and managing key aspects of functioning namely emotional, social and thought processes. Emotional intelligence skills include becoming self- and socially aware by integrating emotions and sentience as well as synchronizing emotions with reason. Furthermore, it requires self-management in order to direct actions with vision, goals and motivation to solve problems. Emotional intelligence requires social competence and skills to creatively initiate, maintain and enhance inter- and intrapersonal relationships. Goleman (1995:34) states that emotional intelligence consist of abilities such as self motivation and persisting despite frustrations; controlling impulses and delaying gratification; regulating moods and keeping distress from deluging the ability to think clearly while also empathising and hoping for the best. He (1995:48) further grouped emotional intelligence into the following qualities:

- ❖ **self-awareness** is the ability to recognize a feeling as it happens;
- ❖ **mood management** refers to the ability to reframe, which means consciously reinterpreting a situation in a more positive light;
- ❖ **self-motivation** is the marshalling of feelings of enthusiasm, zeal and confidence which is paramount for achievement;
- ❖ **impulse control** is the ability to delay impulses in the service of a goal;

- ❖ **people skills** consist of the capacity to be socially competent and self-assertive to be able to cope with frustrations and to know how others are feeling."

Emotional, social and cognitive competencies as outlined above are all interrelated and function together to aid the middle adolescent in their resilient functioning. Goleman's theory on Emotional intelligence highlights the need for middle adolescents to be able to identify and manage emotions in themselves, identify emotions in others and showing the necessary empathy for what they are going through as well as being able to apply ego-resiliency strategies, all of which are important aspects in resilient functioning.

The middle adolescent in the school context can be characterised as testing rules and limits with an underdeveloped understanding of cause and effect as well as feelings of invulnerability and lack of taking personal responsibility for their actions. An example of this can be seen when a teacher confronts a middle adolescent when they have misbehaved in class and their reaction would be "it was not me or it is not my fault or even this can't happen to me" because they have difficulty in linking behaviour to consequences. Furthermore, a lack in impulse control, reality testing and delaying immediate gratification (aspects related to a lack in ego-resiliency) can lead to unfavourable risk taking as seen in underage drinking, drug taking and teenage pregnancies. It is important that the distinction between the concepts self-control and self-regulation that are related to ego-resiliency be clarified. Self-control refers to the middle adolescent's ability to behave according to the rules and regulations of the teacher and the school, especially in the absence of authority figures. Self-regulation on the other hand is an empowering function, which allows the middle adolescent to plan, monitor and evaluate his or her own behaviour and flexibly adapt to changing situations. This important aspect of ego-resiliency should be fostered.

In the Resilience Enhancement Kit, the middle adolescents can be asked to participate in forming the rules that all the learners need to abide by during the

sessions. The aim of including the middle adolescent in the setting up of the rules and regulations is to foster feelings of ownership in their own learning process as well as making them feel secure. The activities in the Resilience Enhancement Kit can be focused towards linking the middle adolescents' behaviour to realistic consequences by using the teacher, Educational psychologist and peers as monitors of ego-resiliency. Questions related to ego-resiliency can be included in the Resiliency Scale, which could include: "I am able to wait for a period of time before I get something I want or achieve specific goals" and "when making decisions or plans I make sure they are realistic, reachable and practical". Other questions could be stated as "I can easily change and adjust to different situations that can be stressful" and "it is important to think before you act". The development of self-regulation involves the internalization of an external example set by the teacher or psychologist. This internalization is obtained by actively engaging with middle adolescents in the social environment and explaining to them the reasons why an instruction is given and the value of the content they are engaging with in the real world as well as acknowledgement of the middle adolescents' emotions and providing emotional nurturance. The teacher can foster feelings of belongingness when middle adolescents feel part of the class; clear boundaries are set for appropriate behaviour and the teacher models empathetic behaviour towards learners.

Educational psychologists know that the middle adolescents' search to create their own identity results in them being self-involved and as a result, they have difficulty with showing empathy towards others. Furthermore, they resent criticism and negative remarks from peers and adults even though they use them towards others, which add to their lack of empathy towards people around them. The middle adolescent are also still very dependent on external motivation and although they want to work independently from the influences of adults they still want the approval of a teacher regarding their academic work which in turn motivates them to try to achieve better results. These characteristics of middle adolescents necessitate the need to develop and enhance emotional

competencies, because emotional maturity can lead to resilient functioning. *"The hallmarks of emotional maturity are the adolescent's ability to refrain from emotional outbursts in front of others, and to blow off steam in a more suitable place and in a socially acceptable way at a more opportune time. Another indication of emotional maturity is given when instead of acting rashly; the adolescent evaluates a situation critically before reacting to it. An emotionally mature adolescent also understands and empathizes with other's emotions and can accept, understand and share their feelings"* (Gouws et al., 1994:95). Teachers can help facilitate empathy in middle adolescents by modelling altruistic and caring behavior toward others and by helping them to take the perspective of others in conversations, for example, a teacher might ask the middle adolescent, "how would you feel if you were _____?" when they display uncaring behaviour such as teasing.

The aspects of emotion and empathy could be addressed in the Resilience Enhancement Kit through activities that require middle adolescents to look at situations from a different person's point of view for example dramatizing a scene, mirroring emotions and behaviour in pairs. They could also use the example from role models and even utilize music that plays an important role in middle adolescents' lives that reflect empathy. These discussed activities can be utilized because the discipline of Educational Psychology teaches that middle adolescents learn best when activities are chosen that is personally meaningful to them and they can actively participate in it. Learning also occurs through social interaction so middle adolescents need feedback to learn but the feedback needs to be accurate and useful, therefore the input from teachers and Educational psychologists to regulate, explain and direct the activities are important. The Resiliency Scale could include questions that measure the middle adolescent's level of empathy towards others, which could include "I try to understand what difficulties other people go through"; "I am able to put myself in other people's shoes" and "I try to understand my friends better by imagining how things look

from their perspective". The functions that emotions serve also form an important aspect in understanding the emotional component of resiliency.

2.5.4. Functionality of emotions

One of the significant aspects that separate humans from other species is the middle adolescent's ability to express and experience emotions. Facial expressions and body language is a vehicle of communicating what the middle adolescent's emotional reactions and thoughts are towards others, the environment and his or her self-perception. The understanding of other's verbal and non-verbal emotional cues plays an important role in establishing and maintaining social relationships. Empathy, compassion, co-operation and forgiveness for instance all have the potential to unite middle adolescents. Emotions help the middle adolescent to set boundaries, which are necessary to protect physical and mental health. When the middle adolescent feels uncomfortable with another person's behaviour, emotions act as a warning signal. Emotions determine the behavioural adaptation a middle adolescent has to respond to external and internal perceived stimuli.

The middle adolescents' ability to discuss their own emotions as well as to identify emotions in others can be ascertained by questions in the Resiliency Scale such as "I can easily tell what other people are feeling by looking at their faces and body language" and "I am able to discuss my feelings with other people". The Resilience Enhancement Kit utilizes activities where a non-threatening environment is created for learners to express their emotions and where they can learn from the behaviour of their peers through activities such as role-play, demonstration and game play. Reid (2001:171) reiterates the importance of game play in that the facilitation of an environment that is safe and boundaried where players are encouraged to share and explore their thoughts, feelings and behaviour have greatest therapeutic value. It is important however that the psychologist must address any misconceptions and encourage the

middle adolescent or the group to express themselves as well as discuss the responses of members in the group.

Emotions of middle adolescents also play an important role in motivation, retrospection (memory), learning, attention and reasoning. This is not just important in the school context but also for survival, learning new behaviour and revising learned behaviour based on similar previous experiences. Emotions play an important role in decision making because it functions as a valuable source of information that sensitises the middle adolescent regarding choices being made. This view is supported by Zimbardo (1992:465) who states the following:

"The function of emotions serves as a motivational function by arousing us to move and to take action with regard to some experienced or imagined event. Emotions direct and sustain our actions toward specific goals that benefit us. It also helps us to organise our experiences by influencing what we attend to and the way we interpret and remember learned experiences. In addition to these functions, it amplifies or intensifies selected life experiences, which has self-relevance. Emotions can give us an awareness of inner conflicts, regulates social interaction and help to communicate what we are feeling and intending".

Unfavourable (negative) emotions play an essential role in calibrating mental or behavioural adjustment. Favourable (positive) emotions however serve as an incentive to maintain the status quo. Evocation of emotions can emanate from motives, goals and needs as represented by Maslow's hierarchy of needs. Resilience is the middle adolescent's drive to survive the onslaughts of life, which correlates with Maslow's hierarchy of needs where human beings have a basic need to survive not only on a physical level but also on a psychological one. Furthermore, the middle adolescent has a need to belong as well as affiliated with groups where they can be acknowledged and accepted. These needs enhance their perception of their own competence, confidence and self-esteem. An increase in the middle adolescents' esteem needs will enable them to be in

touch with their emotions, build interpersonal relationships and will allow them to perceive reality accurately because they have sufficiently gratified their basic needs. Emotions guides the middle adolescent to obtain his or her goals and needs and alert the middle adolescent if needs are not met. These discussed functions of emotions create the incentive why a middle adolescent might experience an emotion, but an emotional response is dependent on an appraisal process.

2.5.5. Individualistic appraisal of emotions

"Appraisal theory may help to understand the ontogenetic development of emotions, which is marked by an increasing differentiation of emotional states. All theories of emotion assume, at least implicitly, that the specific kind of emotion experienced depends on the result of an evaluation or appraisal of an event in terms of its significance for the survival and wellbeing of the organism. The nature of this evaluation process has been rarely specified, even though many philosophers had shown the way by identifying some of the major dimensions inherent in the evaluations of the significance of events." (Scherer, 2001:93).

Therefore, it is important for the teacher or psychologist to understand the aspects that give rise to emotions because it will enable them to know why the middle adolescents might react the way they do and how the middle adolescents perceive their emotions. The heightened emotionality characterized by the middle adolescent years is caused by physical, cognitive, social and moral factors and adjustment to the environment. Middle adolescents are concerned about their physical attractiveness to others and their rate of development compared to their peers. They are also concerned about their schoolwork, making and keeping friends, achieving in sports and falling in love. The middle adolescents' appraisal of events and circumstances give rise to their emotional reactions to all these above-mentioned aspects. Educational psychologists know that the appraisal process also allows the middle adolescents to evaluate how they feel about themselves as part of forming their self-concept, an important aspect of

2.5.5.1. The information processing sub-system

The middle adolescent continually surveys the external environment and his or her internal state for stimuli by using the various senses, central nervous system and limbic system in the brain. The results of the perception, recollection of previous experiences, prediction regarding relationships, events and actions are evaluated in terms of their significant relevance to the middle adolescent's welfare. Responses are activated quasi-automatically, for example happiness makes a middle adolescent smile. *"The organism constantly processes information about events (external stimulation and changes in its internal milieu). The result of this processing, knowledge is stored in short-term memory. The organism constantly evaluates all this information with respect to its implications for wellbeing. This evaluation or appraisal process consists of determining the overall significance of the stimulus events for the organism (characterised by its position concerning the consequences of the events in relation to needs, motives and values of the organism) (Scherer, 2001:369).*

Middle adolescents tend to be very observant and in the school system they constantly inform each other about what is going on and they discuss relationships regarding their peers and teachers. They share previous experiences from what has been observed and evaluate how it will affect them. When a teacher is having a bad day and the middle adolescents experience it negatively, they will evaluate how it will affect them later when they go into that teacher's class and how they will react to that teacher, as well as how the teacher's reaction makes them feel about themselves (teacher's criticism).

2.5.5.2. Support subsystem

The meaning attributed to the stimuli determines and regulates the middle adolescent's internal state that prepares him or her for action. This physiological component supplies the energy for behavioural activity. If the middle adolescent for example evaluated the situation as "dangerous", then the appropriate response would be "fight or flee" as seen when middle adolescent boys fight over

a relationship with a girl. Another example would be that criticism from a peer or teacher can cause a negative emotion and can result in disorders because of a poor self-concept. Cacioppo (1999:9) states that the evaluative processors comprising the affect system are combined in order to find preferences and coordinate action. He indicates that the two specialized appraising channels that process information is threat-related (negative) and safety and appetitive (positive). In the Resiliency Scale this aspect could be highlighted by the question: "to make good decisions it is important to think about what will happen afterwards".

2.5.5.3. Executive subsystem

The middle adolescent plans, makes decisions and prepares for action by comparing the current situation to motives, plans and learned schemes. *"The associative processing is automatic. This activation can be based on perceptual or conceptual. As these memories are activated any appraisal meanings associated with them are also activated and when these meanings become sufficiently activated they can influence the person's emotional state"* (Scherer, 2001:130). An example of how middle adolescents use this subsystem is by using emotion (crying, whining or debating) to manipulate teachers and parents to do what they want them to do especially if this type of behaviour worked in previous occasions. If this type of behaviour does not work, they often tend to sulk. In the Resiliency Scale this aspect could be highlighted by the question: "I do not try to manipulate other people to get what I want".

2.5.5.4. Action subsystem

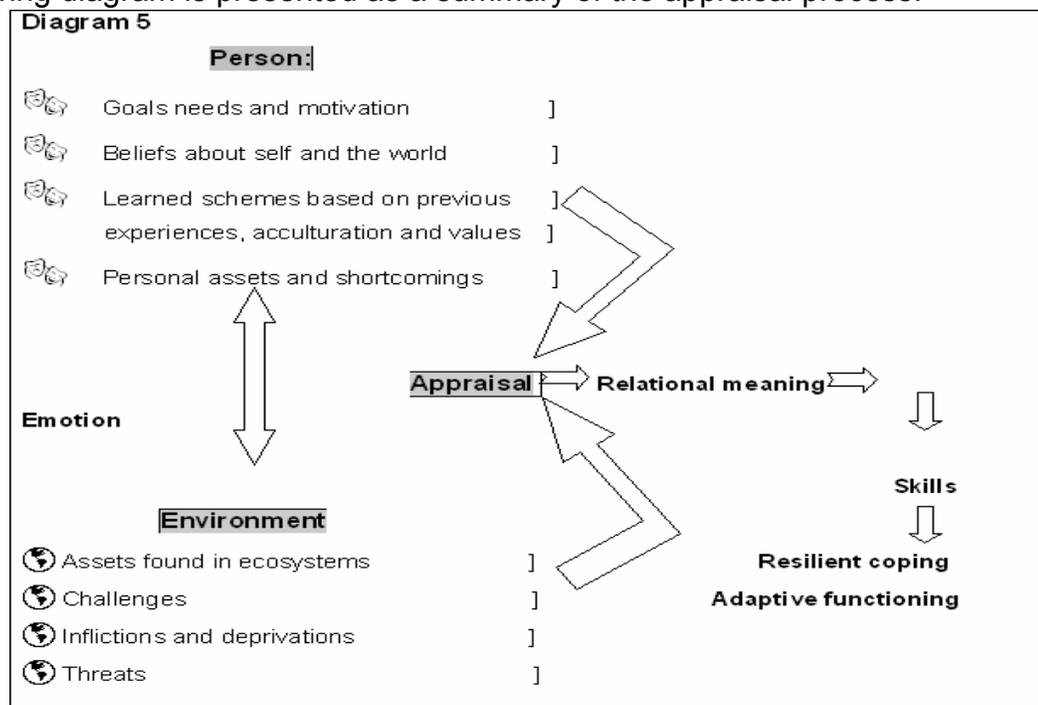
The middle adolescent communicates intentions by physiological expression and action for example a middle adolescent will imitate the peer groups' behaviour to gain their approval. *"The result of the appraisal process produces emotional episodes and when there is sufficient evidence the perceived significance of the appraised events requires adaptive action or internal adjustment. Differences in the ensuing emotions consisting of several components such as physiological*

responses, motor expression, action tendencies, and subjective feeling are determined by the specific patterns or profiles of the appraisal result. "(Scherer, 2001:369). In the Resiliency Scale this aspect could be highlighted by the question: "I have the ability to control myself and apply self-restraint when I feel emotional or in an emotion provoking situation".

2.5.5.5. Monitoring subsystem

The middle adolescent focuses his or her attention on unresolved situations requiring an adaptive response and integrates information about internal and external events based on memory and learning. In the school context middle adolescents might associate the school with negative emotions if they experience poor academic results or lack of support from the teacher, but if they should change the way they approach their school work and as a result receive positive feedback from their teachers it could alter their emotions regarding the school or teacher. In the Resiliency Scale this aspect could be highlighted by the question: "if I don't understand something I will think about it (reflect) and ask someone for help".

Taking the discussed systems according to Scherer (2001:130) into account the following diagram is presented as a summary of the appraisal process:



This diagram shows that the middle adolescent is unique and reacts differently to the environment and relationships. *"Potential sources for individual differences in appraisal tendencies are organismic predispositions (e.g. habitual cortical arousal), cognitive styles (such as cognitive complexity), and personality traits (e.g. extraversion, rigidity, sensation-seeking). Transitory motivational states or moods are likely to affect the appraisal process as well. (Scherer, 2001:383).* This implies that the appraisal process will be influenced by the personality makeup, temperament, cultural influence and nurturing as well as cognitive capabilities of the middle adolescent. Howard and Johnson's (2003:4) summary of protective factors that influence the development of resilience as described in chapter one, can be applied to this appraisal process. In this summary personal attributes such as temperament, emotional strength and self-esteem are listed as amongst the aspects that influence the development of resilience that can also be linked to the emotional competence of middle adolescents.

Criticisms of Scherer's appraisal theory are that the focus is too cognitive. *"Many of the criticisms that have been levelled at appraisal theory, claim that it is too slow and too analytical to explain the rapid onset of certain affective reactions, especially when triggered by stimuli that are processed outside of awareness"* (Scherer, 2001:370). It must be kept in mind that the appraisal process transpires expeditiously and due to the explanation of the process, it might seem slow. This appraisal theory is of value because it enables the teacher and middle adolescent to understand what influences emotional competence.

2.5.6. Emotional response patterning.

The appraisal of emotions is an internal process with personally significant content. It must be remembered that the middle adolescent is part of an ecosystemic context that functions in a dynamic, interdependent and interacting relationship according to Donald, Lazarus and Lolwana (1997:34). This implies that the various social contexts such as family, friends, school and community

will have a direct influence on how the middle adolescent will appraise and view his or her emotions.

"Interacting with a specific person or with the members of a group can change our goal hierarchy by making certain needs or goals more or less important or desirable and can render certain values or norms much more salient. Verbal communication or the observation of other's emotional reaction can interfere with the underlying appraisal process. Given the transactional nature of appraisal this will change the resulting emotion. The compatibility with the ideal self and with normative standards is completely determined by social factors and may vary with different social and interactional contexts." (Scherer, 2001:381).

This statement implies that emotions emanate from social situations and emotional expressions have social functions. As social beings middle adolescents often try to modify emotional behaviour which will result in acceptance and a favourable regard by significant others and peers. The middle adolescent has a heightened sensitivity to other's evaluations of them and they become self-conscious as they try to blend into the dominant social structure. Middle adolescents learn from their parents and peers how to become adept at interpreting social situations as part of the process of managing emotional displays. They observe the emotional reaction of others to specific situations. This observation can play down or heighten the importance of a personal reaction to the same event. Manstead and Fischer's (2001:223) research concurs with this view and they mention that significant others in the middle adolescents' life are implicitly or explicitly involved in the construction of the appraisal of emotions and their reactions to the emotional event are also appraised and play a significant role in the intensity, duration and expression of the emotion experienced.

The Resilience Enhancement Kit can therefore utilize group work and information regarding role models in society in order for learners to learn from each other's life experience and shared social context. The learners are asked to function as monitors during the sessions to keep perceptions and behaviour in line with resilient functioning.

Families also help shape attitudes about emotions through their ability to identify emotions, way of interpreting events and expressing emotions. Eric Berne (Thompson et al., 1996:233) explains in his Transactional Analysis theory that the messages middle adolescents receive from significant others and self-messages originating from self-talk influence their psychological script. "*A psychological script is a person's ongoing program for a life drama; it dictates where people are going with their lives and the paths that will lead there. The individual consciously or unconsciously acts compulsively according to that program, based mostly on messages they received from parents*" (Thompson et al., 1996:233). Some of the problematic schemas families teach their children according to Sims (1996:4) could include the following:

- ❖ Always treat other people's feelings as more important than your own.
- ❖ Never do anything that might cause discord or negative feelings for someone else.
- ❖ Do not express anger or sorrow.
- ❖ Ignore your feelings, or better still, do not feel because feelings get in the way.
- ❖ Do not trust others with your feelings keep them to yourself.
- ❖ Never trust feelings only your logic.
- ❖ Be happy all the time.

These schemas can also be gender specific for example, females are more emotional than males and boys are taught that expressing emotion causes embarrassment ("big boys don't cry"). The schemas that families abide by originate from culture. Different cultures emphasise some emotions more than

other emotions due to their relative importance for that culture. Mesquita and Ellsworth (2001:223) came to the same conclusion and state that "*some qualities of emotional experience may be culturally idiosyncratic and therefore strange to members of a different culture, while others may be culturally general and therefore more easily understandable*". From a middle adolescent's behaviour, learned emotional schemas can be inferred.

Supporting the schemas is dimensions, which according to Lawson (2002:2), a middle adolescent might typically use to explain why an auspicious or detrimental event happened "*our attributions can be global, specific, permanent or temporary as well as internally or externally based on pervasiveness, permanence and personalization*." Sims from the University of Illinois (1996:2) also examined these dimensions and found that emotional responses could be based on:

- ❖ Dichotomous thinking: interpreting events in extremes, "all or nothing" ways.
- ❖ Excessive personalization: automatically concluding that another's behaviour or mood is a direct response to you.
- ❖ Overgeneralization: seeing an event as having more impact in more areas of your life than it truly does.
- ❖ Filtering: magnifying negative events in your life and discounting positive ones.
- ❖ Emotional reasoning: concluding that what you feel must be the truth even if it is skewed view.

These schemas form the rational and irrational beliefs that have an influence on a middle adolescent's expression of emotions, motivation, behaviour and thought processes (cognitive competence). In keeping with learned schemas, middle adolescents will express and describe their emotions by making use of metaphors and similes. "*We found that longer messages were created for negative emotional states, a wide variety of figurative expressions were used to express intense emotional states*." (Fussell, 2002:2). The middle adolescents will often express themselves through slang language for example feeling "bummed

out" or "cool". In using this type of language, the middle adolescent can relate to each other. The use of body language is also an expression of emotion for example keeping to cultural schemes boys will often react physically if they are upset while girls will resort to crying and complaining. Through language and non-verbal communication, middle adolescents structure their understanding of the world and express their inner emotional state. Teachers and psychologists must be knowledgeable and aware of the development of emotions, emotional expressivity and aspects such as schemas, which influence the middle adolescent so that they are able to assist the middle adolescent when they are in need of support.

The group work in the Resilience Enhancement Kit enables the learners to gain insight into the cultural schemas of emotional behaviour. The learners are given the opportunity to discuss and demonstrate the differences in cultures of expressing emotion and communicating verbally and non-verbally. The knowledge and skills gained is necessary to assist the middle adolescent to become resilient in a widely diverse society.

2.6. Psychological appraisal of emotions

In the 1960's, Magda Arnold set out to measure emotion. She used the Thematic Apperception Test (TAT) to analyse emotion. Schorr (2001:331) describe this psychological test as *"the first of a series of emotional experience questionnaires used in the late seventies consisted of pictorial representations of the typical facial expressions of four basic emotions labelled joy/ happiness/ pleasure; sadness/ sorrow/ grief; fear/ fright/ terror and anger/ bad temper/ rage. They used event-orientated questions about the emotional response"*. This type of measurement was not satisfactory and language became the sole stimulus measure. Although subjective measurements like self-report questionnaires and self-observation are often ridiculed based on reliability and validity, objective measurements do not always elicit the middle adolescent's unique emotional response to a particular situation. Schorr (2001:333) also felt that objective

measurements are limited in the dimensions they describe and subsequently provide a lesser amount of information than subjective measurements that require the respondent to describe and recall an emotional experience. The use of a combination of different research methodologies is considered the most promising for the appraisals of emotion. According to Scherer (2001:387) the experimental methods, in-depth interview, rating-scale and the reproduction of past emotional incidents from memory through questionnaires as well as the collection of real-life observational data and self-reports during the natural occurrence of emotional incidents, are the most promising methods to obtain a holistic image of the middle adolescent's emotional functioning. The Resiliency Scale encompasses a rating-scale based on the middle adolescents' self-reports on their everyday functioning as well as observation to assist them in identifying their level of resilience as well as utilizing these methods for self-reflection.

The introduction of experimental methods such as exposing middle adolescents to images, music, slides and films by some researchers to obtain an emotional reaction could result in undesired unnatural emotional reactions to those events. The cognitive simulation of emotion evoking situations and then asking participants to rate the intensity thereof also forms part of experimental methods. *"The interview as a retrospective method of collecting emotional experiences offers many opportunities to interactively question the subject and thereby inquire about further details. When compared to questionnaires, it is less standardised, requires more research resources and is more time-consuming. Chances increase that responses collected in interviews may be distorted not only by social desirability effects or response questions but mainly by a lack of openness due to missing anonymity"* (Schorr, 2001:335). It is possible that middle adolescents who are faced with in-depth interviews will not want to express negative, socially non-conformant emotions because they could believe that it would tarnish their image projected to others. It is preferable to use questionnaires in appendage to interviews and other self-report methods because the results of these methods can be compared to obtain reliability and

validity of conclusions drawn. Schorr 's (2001:337) critique of questionnaires is that *"these very simple instruments investigate the relevant features of the emotional process in such detail that the responses hardly allow any conclusions as to whether or not the aggregated data correctly represent the middle adolescent's emotional experience."*

Another question arises as to the authenticity of retrospective emotions and events from the past. Schorr (2001:337) is of opinion that time dilutes the intensity of emotions experienced and that details can easily be omitted due to the rearrangement and reinterpretation of events. Real-life observation and the recollection of recent experiences are the ideal means of studying emotion. It is important when appraising emotion that the emotion-eliciting situation and middle adolescent differences must be taken into account. *"In emotion appraisal studies, participants are asked to indicate their feeling state with the help of rating scales on which they have to rate the relative intensity of several emotions. Generally, participants make use of such multiple specifications of their emotional reactions, indicating differential intensities for two or more emotions. So far, there does not seem to be an appropriate method to analyse these emotion blends in a statistically satisfactory way"* (Scherer, 2001:387). Based on the critique of Scherer on eliciting information on emotional blends and binaries Fussell (2002:2) suggested the following psychological tests to ascertain emotional state:

- ❖ Emotional State Rating Scale (ESRS) based on Osgood Semantic Differential. This scale requires subjects to rate an emotional experience along a variety of dimensions, which can be factored into three dimensions: intensity, activity and valence (good/bad).

Cacioppo (1999:2) suggested the following measures of assessing emotion:

- ❖ Continuous self-report measures and observations.
- ❖ Retrospective verbal protocols.
- ❖ Nonverbal pictorial assessment techniques.
- ❖ Facial electromyography.

- ❖ Behavioural Approach System / Behavioural Inhibition System measure. It is a self-report instrument designed to assess adolescent differences in the tendency to approach or withdraw and to experience accompanying affective states.

The National Institute of Mental Health (1999:1) further investigated means by which emotions can be ascertained and suggested that Neuro-imaging (Positron Emissions Tomography and magnetic resonance imaging) could be used to see the living, thinking, feeling human brain when emotions happen.

It must be remembered that psychological tests are devices that the Educational psychologists use to aid him or her in identifying strengths and weaknesses that the middle adolescent exhibits in order to use the information for prevention, rectification, rehabilitation and development of support measures in schools. In support of this view Cacioppo (1999:2) stresses that "*the research of emotion state, developments are needed that test specific conceptual hypotheses based on field sampling methods and ambulatory assessment and intervention programs in conjunction with these methods*". In this research therefore, the information gained from the adolescents' emotional state (strengths and weaknesses) as a modality of resilience will aid in developing a Resiliency Scale that could measure the emotional resilience in the school context.

2.7. Emotional resilience and school context

The shift in the South-African education system to become more outcomes based stems from a focus on holistic learning and optimal school functioning. This implies that not only the cognitive aspects of learning have to be developed and enhanced but the social- and emotional aspects of a learner as well. It becomes evident by observing learners that if a middle adolescent experiences some form of emotional lability, they are incapable of functioning optimally. Lawson (2002:4) agrees with this perspective and feels that due to difficulties in management of emotions middle adolescents' emotional problems are manifested as behavioral problems. He explains that middle adolescents tend to

externalize or over-control (internalize) their emotions because they are too sensitive. Over sensitivity can lead to withdrawal from others or acting out and poor school performance can also reinforce feelings of anxiety, sadness and low self-esteem. Unfavorable emotions can disrupt thinking and prolonged emotional distress can suppress a middle adolescent's ability to learn.

The connection between emotions and cognition is not adversarial but these processes function together. The important link between emotions and learning is described by Lawson (2002:5) as follows: "*emotions and learning occur in the brain. Our thoughts influence how we feel. How we feel influences how we think. The connections between emotion and learning are bi-directional and complex. We think about an incident and our mood changes. Emotions are the relay stations between sensory input and thinking. When the input is interpreted positively, we are motivated to act and achieve a goal*". Therefore it is of the greatest importance that the middle adolescent learn how to manage their emotions effectively.

Adolescent development is characterized as a turbulent time and it is important that middle adolescents develop emotional competencies to cope with the challenges and stressors they are confronted with in their social environment that includes the school context. In order to identify and label their emotions accurately, middle adolescents must learn to pay conscious attention to them. Without this self-awareness, middle adolescents will continue to describe their emotions as "good", "bad" or "okay". When middle adolescents are able to specify that they feel "anxious" about an upcoming test or "sad" about being reprimanded by a teacher, then they have identified the source of their emotions, which can lead to discovering options to resolve their problem. The middle adolescent with the support of a teacher or psychologist can constructively do something about the cause of the negative emotion.

However, if the emotions become uncomfortable enough and the source is undefined, they may seek to numb their emotions with alcohol or other drugs, to overeat, or to withdraw and become depressed. Middle adolescents who feel angry may take out their anger on others or themselves. Sims (1996:4) stresses the importance of learning to experience emotions fully and expressing them in ways that are adaptive and salubrious. He states that the middle adolescents should become good observers of their emotions and accept, value and attend to what they signal by learning how interpretations and thoughts affect emotions and also how learned schemas from the family about emotional expression continue to influence their behaviour. The school context is an ideal environment where the middle adolescent can learn emotional competence taught and modelled by teachers and Educational psychologists.

The teacher can support the middle adolescent in developing emotional resilience by reflecting the mood of the middle adolescent in the classroom for example if the middle adolescent seems enthusiastic or sad, responses should reflect that the teacher understands and acknowledges the middle adolescent's emotions. Reflecting the middle adolescents' mood helps them feel understood and valued. The characteristics of teachers and Educational psychologists that foster emotional resilience include being compassionate and sympathetic, a good role model who is trustworthy and reliable, a good listener and observer and someone who expresses a positive attitude. *"Teacher's personality can contribute to his or her effectiveness. It has been shown that good teachers who are liked by pupils have the following characteristics: co-operative, democratic attitude, kind, considerate, patient, fair, impartial, broad interests, a sense of humour, interest in pupils problems, flexible, pleasant disposition and consistent behaviour. Good teachers should show warmth and empathy and a caring attitude toward their pupils"* (Mwamwenda, 1995: 504). Thus, the way teachers and Educational psychologists express themselves non-verbally and through the verbal use of precise terminology of emotions and non-verbal communication of emotions can help the middle adolescent learn how to identify and label

emotions. Recognizing and expressing emotions lays the groundwork to recognize emotions in others.

Furthermore, teachers and Educational psychologists need to be transparent, if they are having a bad day, the middle adolescents need to be made aware of it in order for them to give the teacher the time and space to deal with the difficult situation. Teachers should also ask the middle adolescents to tell them when they are having a bad day so that the teacher can make allowances for them because in this way the teacher and middle adolescent can learn and show empathy towards each other. Honesty, openness and living by example allow the teacher to create a classroom environment where the middle adolescents are able to meet their needs for care, safety and expression in a way which fosters emotional competence. Encouraging middle adolescents to discuss and think through the ethical and moral issues that can be found in the news allows for the development of different points of view and empathy.

A further aspect of emotional competence of importance in the school context is ego-resiliency. Ego-resiliency is the middle adolescent's ability to self-regulate and manage actions, thoughts, and emotions in adaptive ways. Middle adolescents who exhibit a lack in ego-resiliency often engage in dysfunctional conduct, for example being withdrawn, isolated, off-task, out-of-seat and show disruptive behaviors in class. The teacher can foster ego-resiliency by reinforcing the appropriate ways to express emotions, delay behaving impulsively and seeking immediate gratification. *"Reinforcement plays an important role in observational learning. If a person is rewarded for a particular behaviour, the chances of this behaviour being modelled are higher. Teachers can reinforce pupils by commenting approvingly on their work, smiling, rewarding them, showing interest in them and accepting them for what they are"* (Mwamwenda, 1995: 205). Thus, due to the fact that middle adolescents spend a lot of time in the school environment with teachers who can attend to the physical, social and psychological aspects resilience can be fostered by incorporating it in the

learning process. As discussed in this chapter as well as outlined by the work of Benard (1995:1); Henderson (2002:3); Rouse (1998:2); Jew, Green and Kroger (1999:2) as well as Mangham, McGrath, Reid and Stewart (1995:8) in chapter one, emotional competencies inherent to resilience that should be fostered in the school context should include the ability to identify and manage emotions, showing empathy and exhibiting ego-resiliency. The practical application of emotional competence will be discussed in chapter five for the school context.

2.8. Conclusion

In this chapter, the nature and origin of emotions as well as emotional state were discussed. It was found that emotions consist of different intensities and can consist of combinations (binaries) which result in primary and secondary emotions. Emotions affect all areas of a middle adolescent's life and it is shaped by temperament, emotional intelligence as well as parental, cultural and social influences. The school is one of the most important contexts where the middle adolescent spends his or her time. The school can exert a fundamental influence in developing the middle adolescent holistically. To be well-integrated middle adolescents, it is necessary that emotional competencies be developed as well as an introspective awareness of personal emotional states. Emotions will therefore be vitally important in developing into a resilient middle adolescent by identifying, expressing and managing emotions. The middle adolescents' emotional competence is appraised based on self-reports, interviews and rating-scales because of the meaning middle adolescents ascribe and link to their emotions. Focusing on the emotional- and social wellbeing of middle adolescents in schools, support efforts in developing resilient citizens in a rapidly changing society. The next chapter will focus on the development of the social competencies in resiliency.