6 SUMMARY, CONCLUSION, DISCUSSION AND RECOMMENDATIONS

6.1 INTRODUCTION

This study was carried out with the aim of gaining insight into the way in which the school environment contributes to the resilience of middle-adolescents. By studying the mechanisms contributing to successful development and not successful development, the relationship was shown between the school environment and different degrees of resilience of Dutch, urban middle-adolescents with the same low SES. In order to do so, the study was focussed on a system which connects school, community and student performance in a functional relationship. This being the focus of the study, on the basis of a literature review resilience in middle-adolescence was defined as follows:

"A resilient middle-adolescent has the disposition to identify and use resilience qualities in himself and/or identify and use resilience qualities in a specific context whenever he is confronted with difficult and challenging circumstances. The interaction between the middle-adolescent and the context generates a constructive outcome in the development of the middle-adolescent, such as continuous learning (growth and renewal of resilience characteristics) and an increasingly flexible approach to challenging circumstances."

On the basis of this definition, a *Veerkracht Vragenlijst* (VVL, Resilience Questionnaire) was developed in Part A of the study. This questionnaire was used to distinguish between resilient and not-resilient middle-adolescents. This VVL was examined as regards internal structure, reliability and validity.

On the basis of the VVL scores, 21 middle-adolescents (10 resilient and 11 not-resilient) were interviewed, and a Grounded Theory was developed about "The Resilience Process in the School Environment".

In this chapter, a number of conclusions are drawn on the basis of the results of Parts A and B of the research. First, Part A is summarised in paragraph 6.2. Secondly, in paragraph 6.3, Part B of the study is briefly described and interpreted from a bio-ecological perspective, as presented in Chapter 1. In this paragraph, relevant literature, as presented in Chapter 2, is referred back to, and additional literature is discussed. Based on research results and literature, recommendations for educational practice are formulated. In paragraph 6.4, the qualitative research results from research Part B are placed in the light of the quantitative research results from Part A. In paragraph 6.5, remarks on the research design are made. In paragraph 6.6, recommendations for follow-up research are formulated. Finally, paragraph 6.7 presents a short summary of the research results.

6.2 DEDUCTIVE LOGIC: PART A OF THE RESEARCH

6.2.1 SUMMARY OF RESEARCH PART A

Part A of the study aimed to initiate the development of an instrument for identifying resilience. Based on a literature review, 33 items describing resilient or not-resilient behaviour were formulated. These items were presented as the VVL to 399 middle-adolescents attending five educational opportunities schools in and around the city of Utrecht in the Netherlands. At the same time, the same middle-adolescents were presented with the *Nederlandse Persoonlijkheidsvragenlijst voor Jongeren* (NPV-J; Dutch Personality Questionnaire for Young People). The VVL has been examined in respect of its internal structure and reliability and has been validated both in terms of content and as an instrument for measuring resilience as a construct by use of the NPV-J.

6.2.2 QUALITY OF THE VVL

6.2.2.1 Introduction

Principal Components Analysis (PCA) with varimax rotation of the 33 items of the VVL resulted in three components of which two are readily interpretable, reliable and valid. The content of the third, unreliable component gives direction to the formulation of multiple items for improvement of the third component. Although the third component has not been used in the study to identify resilient and not-resilient middle-adolescents, its most interesting content more than justifies the elaboration on

this topic later in this chapter, based on theory and qualitative results. In this paragraph, the first two components will be discussed first, followed by the third component.

6.2.2.2 Components 1 and 2

The analysis of the VVL shows that 22 of the 33 items can reliably and validly be subdivided into two "forms of behaviour": resilient and not-resilient behaviour. Based on that analysis, these two forms of behaviour can be characterised as follows:

1. Resilient behaviour

   a. Behaviour that is characterised by *identifying help* in the environment when circumstances are experienced as being difficult;
   b. Behaviour that is characterised by *identifying and using* help in the environment when circumstances are experienced as being difficult;
   c. Behaviour that is not characterised by seeking help in the environment, but by a *proactive or constructive reaction* when circumstances are experienced as being difficult;

2. Not-resilient behaviour

   a. Behaviour that is characterised by actively stopping and giving up when circumstances are experienced as being difficult;
   b. Behaviour that is characterised by inactivity and a lack of constructive action when circumstances are experienced as being difficult;
   c. Behaviour that is characterised by aggressive responses when circumstances are experienced as being difficult;

The content of Component 1 largely agrees with the findings in literature on resilience and with the definition of a resilient middle-adolescent, and has therefore been interpreted as resilient behaviour. The content of Component 2 largely disagrees with these findings and this definition, and has therefore been interpreted as not-resilient behaviour. In paragraph 6.4, the validity of both components 1 and 2 will be more closely examined when considered in the light of the qualitative results.

6.2.2.3   Component 3

The three items in Component 3 describe two forms of behaviour and one type of self-evaluation:

3. "Flexible behaviour", "Perseverance and tolerance for negative affect" and "Identification of internal resilience qualities"

   a. Middle-adolescents' behaviour that is characterised by flexibility and the ability to let negative feelings go.
   b. Middle-adolescents' behaviour that is characterised by the ability to endure negative emotions and a capacity to persist.
   c. Self-evaluation by middle-adolescents that is characterised by recognising qualities within themselves.

The content of Component 3 partly agrees with the definition of a resilient middle-adolescent. The distinction between this content and that of Component 1 is based on the fact that the Component 3 items do not include the search for an actual, active solution for a problem, with or without the help of others. The content of Component 3 is more related to the ability of *enduring* the experience of stress or negative emotions, the (temporarily) *letting go* of such stress and negative emotions and the ability to *continue* despite the *experience* of such stress and emotions.

Support for the content of Component 3 can be found in literature on research into resilience. This support gives direction to the development of multiple items for Component 3 in the areas of "tolerance for negative affect" and "flexible behaviour". In relation to a "tolerance for negative affect", Rutter (1993), for instance, argues that resilient youths are not invulnerable. Resilience is the ability to develop successfully in the presence of stress and negative emotions. Items in Component 3 illustrate the case of experiencing stress in combination with a response that consists of "persevering" and "reacting well". In order to explore the third component further, more items need to be formulated which describe this "tolerance for negative affect" in combination with managing stressful or difficult circumstances.

Other authors have developed ideas on how resilient youths flexibly deal with "negative affect" (such as stress) and difficult circumstances. Leontopoulou (2006) studied 326 Greek students in their first year at university. She found that resilient students made use of avoidance and withdrawal strategies much more often than not-resilient students (Leontopoulou, 2006). Leontopoulou refers to the work by Sandler, Kim-Bae and MacKinnon (2000) to explain these findings. These researchers found that resilient youths had a broader behavioural repertoire and were therefore more flexible in their interactions. According to Sandler et al. (2000), resilient adolescents more frequently deploy more avoidance coping as well as more active coping strategies. The critical property which distinguishes resilient from not-resilient individuals appears to be the availability of different strategies.

This means that resilient youths have more ways of conduct in their behavioural repertoire than the "Resilient Behaviour" Component describes. The "Resilient Behaviour" component primarily describes "active problem-solving behaviour", with or without help. The findings of Leontopoulou (2006) and Sandler et al. (2000) convincingly show that resilient youths' behavioural repertoire may consist of more ways of conduct than "active problem-solving behaviour". In their behavioural repertoire, resilient youths seem to have different forms of "avoidant behaviour" "at their disposal" which contribute to their successful development. These ways of conduct could be included as items in Component 3. In paragraph 6.4, the content of new items for Component 3 will be more closely examined discussed in the light of the qualitative results.

6.2.2.4 The "Resilience scale"

For the practical use of the VVL in identifying resilient and not-resilient middle-adolescents, the "Resilience" scale has been developed. This scale includes items of Component 1 (Resilient Behaviour) and Component 2 (Not-Resilient Behaviour). The participants' scores on the "Not-Resilient Behaviour" component are reverse-scored in this scale. Once the data have been reverse-scored, an average high score on the Resilience scale means that the respondent is identified as resilient, whereas a low score means that the respondent is not-resilient.

6.2.3   VVL SCORES

Analysis of the scores for Components 1 and 2 and the Resilience Scale shows that there are no differences between the scores on Resilient Behaviour, Not-Resilient Behaviour and Resilience between the five different schools. So no "school-based differences" have been ascertained. It may be concluded that the five schools do not differ in the degree to which they contribute to their pupils' resilience. However, the specific dynamics of the relation between resilience and the school environment are more complex and less a form of "one-way traffic" than the term "contribution" seems to convey. In the discussion on the qualitative results in paragraph 6.3, these dynamics and the way in which different school environments are related to the resilience of their pupils will be more closely examined.

Analysis of the scores for Components 1 and 2 and the Resilience Scale shows that girls score significantly higher than boys on the "Resilient Behaviour" Component and the "Resilience" scale. Boys do not score significantly higher than girls on the "Not-Resilient Behaviour" Component, so the differences in scores on the "Resilience" Component are explained by the difference in scores on the "Resilient Behaviour" Component.

In Chapter 4, it was suggested that boys are perhaps less inclined towards active problem-solving behaviour than girls (the content of the items in the "Resilient Behaviour" Component). This could explain the differences in their scores on "Resilient Behaviour" and "Resilience". The "Resilience" scale now merely comprises the items of the "Resilient Behaviour" and "Not-Resilient Behaviour" Components. This scale could be expanded when Component 3 has been further developed. On the basis of the content of Component 3, it may be argued that boys might score higher than girls on items which directly relate to "tolerance for negative affect" and "flexible behaviour". When the newly developed content of Component 3 is included in the "Resilience" scale, the difference in scores on this scale between boys and girls might be reduced.

The findings in the qualitative Part B of the study offer information towards developing items which describe other forms of behaviour besides active problem-solving behaviour.

6.3 INDUCTIVE LOGIC: PART B OF THE RESEARCH

6.3.1 SUMMARY OF RESEARCH PART B

6.3.1.1 The emergent Theoretical Model of the Resilience Process in the School Environment

Part B of the study aimed to inductively develop a "Grounded Theory" on the relation between the school environment and the resilience of urban middle-adolescents with a low socio-economic background. In order to do so, 21 middle-adolescents (10 resilient and 11 not-resilient) have been interviewed, a Grounded Theory has been developed as regards the way in which the school environment and resilience are mutually related, and the way in which the school environment can contribute to the resilience of both resilient and not-resilient middle-adolescents has been explored.

The Grounded Theory developed, "The Resilience Process in the School Environment", about the relation between the school environment and the resilience of middle-adolescents, relates the *school environment* to the *home environment* through the *resilience qualities* of the middle-adolescent, which are expressed in his or her resilient or not-resilient behaviour in the school environment.

1 Resilient and not-resilient middle-adolescents enter the school environment in need of the resilience promoting school factors of *safety* and *good education*;

2 In interaction with their parents, resilient and not-resilient middle-adolescents have made different "road maps" of the school environment. These different road maps are expressed in the extent to which resilient and not-resilient middle-adolescents possess the resilience qualities of *overview*, *insight* and *positive future expectations* in relation to situations, events and people within the school environment;

3 Resilient and not-resilient middle-adolescents attach meaning to situations, events and people within this school environment on the basis of these resilience qualities;

4   Resilient and not-resilient middle-adolescents act on the basis of this meaning attachment when interacting with their environment. They elicit behaviour and reactions in others and create relationships on the basis of their meaning attachment;

5   The interaction with the environment results in a renewal, expansion, status quo or reduction of existing resilience qualities.

This Grounded Theory will now be discussed by means of a summary of the findings in the areas of:

- The needs for resilience promoting factors in the school environment;
- The differences in access to resilience promoting factors in the school environment;
- The specific demands on the school environment;
- The home environment in relation to the school environment.

The findings will be linked to relevant literature. This discussion will be concluded by a summary of the way in which the school environment can contribute to the resilience of both resilient and not-resilient middle-adolescents on the basis of their specific demands on the school environment.

6.3.1.2   The needs for resilience promoting factors in the school environment.

Summary
Resilient and not-resilient middle-adolescents are similar in terms of the content of their needs for resilience promoting factors in the school environment. These are *safety* and *good education*. "*Good education*" contributes to a sense of "*safety*" and "*safety*" contributes to being able to experience and take part in "*good education*".

The ways in which the school environment *may* contribute to *safety* according to resilient and not-resilient middle-adolescents are:

Safety:
The school has clear rules; the school team checks on the pupils; presence and absence are recorded; the school directly intervenes in case of fighting or a different

"problematic situation"; the school maintains intensive contact with external organisations, such as community centres and the police.

The school team can be trusted and it expresses its trust in its pupils; pupils are known; the school team knows the pupils by name; the school team has a positive attitude towards pupils; adults in the school environment keep an eye on all pupils; pupils are treated justly and fairly by teachers; teachers let pupils know what they are doing right, not only what they are doing wrong; teachers remain calm when pupils misbehave; pupils are allocated a personal counsellor or mentor; pupils learn to collaborate; the school team members are friendly with one another; in class, teachers allow room for short, informal conversations between pupils and between teachers and pupils.

The school team is able to motivate the pupils; the pupils get help with their homework; captivating teaching creates a good atmosphere in the class room.

The ways in which the school environment *may* contribute to *good education* according to resilient and not-resilient middle-adolescents are:

Good Education:
Teachers are firm, teachers are clear; teachers attach consequences to not attending; teachers have good control over their classes.

Teachers and mentors have high expectations of the pupils; teachers and mentors underline that good marks are important; teachers teach in a captivating manner;

Pupils are assisted in doing homework and learning subject matter; teachers offer room for asking questions about homework and subject matter; teachers clearly explain the subject matter; teachers offer extra time for homework; teachers provide an overview of school tasks; during assignments, teachers regularly evaluate how the pupils are getting on and offer help towards their progress with the homework; the pupils learn to plan their work; the pupils learn to work self-sufficiently.

When teachers and the school team have good control within the school environment, set clear rules, offer support in doing assignments, know how to hold the attention of their hearers, show an interest in the pupils, give pupils responsibilities and have pupils collaborate who would normally not be inclined to work together, then the atmosphere in the classroom and in the school environment will be good, and the pupils will feel safe. Consequently, they will experience greater access to *good education*. They will also behave better when they have the sense of learning something and are assigned certain responsibilities within the school environment.

Relevant literature and interpretation

These findings agree with the earlier research findings of Van der Wolf (1984) on premature school-leaving restraining factors and of Henderson and Millstein (2003) on resilience promoting factors. Inspired by the work of Rutter (1979; 1981), Van der Wolf (1984) investigated *premature school-leaving* in relation to *school-internal* factors and *school results* for regular, primary education. Based on his findings, Van der Wolf construed a theoretical "premature school-leaving restraining school". This school distinguishes itself from others in five areas: (i) the performance of the school team; (ii) the performance of the school management; (iii) the pedagogic-didactic policy; (iv) the attention paid to the importance of knowledge and structure; (v) the deployment of internal and external support. The findings in the present study regarding the needs of middle-adolescents in the school environment agree with the characteristics of the premature school-leaving restraining school where the relationship between the school environment and pupils is concerned. These characteristics relate to *paying attention to the importance of knowledge and structure* and *the deployment of internal and external support*.

Based on the findings in the present study in relation to Van der Wolf's (1984) findings, it is likely that the fulfilment of the middle-adolescents' needs in the school environment concerning safety and good education contributes to preventing Dutch, urban middle-adolescents with a low socio-economic status from prematurely leaving school. The fact that meeting the needs for *safety* and *good education* in the above-mentioned manners also contributes to the resilience of Dutch, urban middle-adolescents with a low socio-economic status, is confirmed by literature on resilience. Within the resilience-oriented framework, Henderson and Milstein published a

handbook in 2003 for creating a resilience promoting school by use of the "Resiliency Wheel". The "Resiliency Wheel" is based on different interaction processes between risk factors and protective factors. The "Resiliency Wheel" applies to both primary and secondary education. The theory behind the so-called "resiliency wheel" in Henderson and Milstein's (2003) handbook concerns a combination of theory on risk reduction and on the improvement of the characteristics of an individual and his environment; this enables the individual to positively develop despite the presence of risk factors. The findings in the present study relating to the needs of middle-adolescents in the school environment agree with the strategies of Henderson and Milstein (2003) in the areas of: setting clear and consistent limits; teaching life skills; providing care and support; setting and communicating high expectations and offering possibilities for meaningful participation.

The reason for Van der Wolf's (1984) research was, among other things, an unexplained variance found in the results of research into the relationship between child and family characteristics and school results. Likewise, the present study was founded on an unexplained variance found in the development of different pupils *within* schools. The findings in the present study illustrate how the needs of all middle-adolescents are similar; how, according to some middle-adolescents, these characteristics *are* present in their school environment; and how, according to other middle-adolescents, these characteristics are not or not sufficiently present in that same school environment. Some pupils develop in a successful way, whereas others leave school prematurely or are referred to other forms of education because of their low performance or undesirable behaviour. Different pupils within one and the same school environment perceive the presence or absence of the same resilience promoting school factors. The observed variance in the degree of successful development can thus not be explained by the presence or absence of these factors. Because this present study focused on pupils from more or less the same "high-risk backgrounds" within schools, this variance cannot be explained by the degree of SES or immigrant or native background either. How this difference *can* be explained, will be discussed in the paragraph below.

6.3.1.3   The differences in access to resilience promoting factors in the school environment

Summary

The present research showed that resilient and not-resilient middle-adolescents have similar needs for resilience promoting factors. However, both groups differed in the degree to which they experienced or perceived these "resilience promoting factors" in the school environment, the extent to which they experienced their access to these "resilience promoting factors" and the measure in which they contributed to their access to these "resilience promoting factors" themselves. They attach different meanings to events and actors within the same school environment.

The attachment of meaning by resilient middle-adolescents and not-resilient middle-adolescents distinctly differs in the degree to which it demonstrates *overview, insight* and *positive future expectations* of and in situations, events and persons in the school environment:

Overview

The resilience quality of "having an overview" relates to the degree to which a middle-adolescent "oversees" the school environment in terms of *school tasks, mechanisms and patterns in behaviour of people in that environment; expectations regarding one's own behaviour; situations that may arise in the school environment; risks for one's own development that may be present in the school environment; and the presence of potential resources to assist one's own development.*

Insight

The resilience quality of "having insight" is related to the measure in which a middle-adolescent has insight into his or her own actual abilities and skills to deal with situations and possible problems or risks.

Positive future expectations

The resilience quality of "having positive future expectations" refers to the degree to which a middle-adolescent trusts their will be improvement of a situation after a

problem or risk has occurred, and of the benefits to be gained by making an effort to deal with a problem or risk.

Resilient middle-adolescents reveal a strategic approach to their school environment. They motivate their behaviour by making a connection between their behaviour and their needs for *safety* and *good education*. They attach meaning to persons and events on the basis of the fulfilment of their needs for *safety* and *good education*. They create access to *safety* and *good education* with their behaviour in the following four areas:

1. *Negative influence of peers*

Resilient middle-adolescents attune their behaviour to their need for *safety* by not concerning themselves with the gossiping of fellow pupils, by not responding to rumours or challenges and by refraining from bullying. This way, they create access to resilience promoting factors in the school environment, because a sense of *safety* contributes to experiencing access to *good education*.

2. *Selecting friends;*

Resilient middle-adolescents are selective in choosing their friends. Constructive friendships are regarded as resilience promoting factors. They attune their behaviour to the need for constructive friendships by keeping their distance from fellow pupils who frequently skip school, display disruptive behaviour or challenge them to take part in criminal activities. They choose as their friends those who behave like they feel their fellow pupils should behave. This way, they create access to resilience promoting factors in the school environment, because they select friends on the basis of their potentially positive influence on their own development.

3. *Creating and maintaining constructive relationships with adults in the school environment*

With respect to safety, resilient middle-adolescents feel that good relationships with teachers are important, because these contribute to their *access* to *protective factors* in the school environment. A good relationship with several teachers is useful, for instance, when one teacher is not prepared or able to help solve a specific problem. Another teacher will then be able to help them with that problem, provided they have a good relationship with that teacher. The behaviour which resilient middle-adolescents attune to these needs includes listening to teachers, having a chat during or in-between classes and making little jokes in order to get to know the teachers. In

this way, they build good relationships with teachers and create access to potential resilience promoting factors, because they have activated various potential resources by building those good relationships.

4. *Participating in education*

As regards good education, they feel it is important to do their homework and behave well in class. Their motivation for their behaviour is that the homework's subject matter is included in examinations and that behaviour is an assessment criterion. They attune their behaviour to their need for good education by doing their homework in time in order to be able to ask their teacher in class what they do not know; by doing the homework together with fellow pupils so that they get a firmer grasp of the subject matter; or by quickly completing - what they consider - easy work in order to have more time available for the subjects they find more difficult. This way, they create access to *good education*, because they can ask well-directed questions and thus ask for and receive well-directed help. Also, they create access to safety by generating teachers' positive feedback through their behaviour.

Not-resilient middle-adolescents reveal no strategic approach to their school environment. They express the same needs for *safety* and *good education*, but their motivation for their behaviour does not connect these needs to their own behaviour. The meaning they attach to situations, events and actors reveals less *overview*, *insight* and *positive future expectations*. They actually do associate with "bullies" and accept challenges to fight. They seem less intent on creating and maintaining constructive relationships with adults in the school environment, either because of their disruptive behaviour in class by which they generate a lot of negative feedback, or by avoiding contact with adults in the school environment. Finally, they effect less access to *good education*, because their agitated behaviour in class prevents them from participating in the education, or because they forget or do not do their homework. As a result, they are less able to ask specific questions and seek and get specific help.

Relevant literature and interpretation

In accordance with the results in the area of "access to resilience promoting factors in the school environment", Waxman, Huang and Wang (1997) and Padron, Waxman and Huang (1999) found that resilient pupils fit in better in the directive class system than not-resilient pupils. The resilient pupils included in these studies showed more

motivation and more attention, answered questions voluntarily and therewith or thereby received more attention and approval from the teachers. The not-resilient pupils in the same study seemed bored, unwilling to answer and, at various times, not prepared to work. They also found that resilient pupils spent significantly more time interacting with teachers for instruction purposes (effective proximal interaction processes), whereas not-resilient pupils spent more time interacting with fellow pupils for social or personal purposes. "Help seeking behaviour" in class turned out to be a strategy which helps pupils deal with school-related difficulties. This way, help seeking behaviour becomes a protection mechanism within the context of the classroom. On the whole, these findings agree with the image arisen in the present study.

At the same time, this study has clearly revealed that teachers play a key role in creating opportunities for the emergence of effective proximal interaction processes: by having control in class, by teaching in a captivating manner and by being a confidant.

Based on the findings of Waxman et al. (1997) and Padron et al. (1999) in combination with the findings in the present study, it could be argued that resilient pupils more actively create access to resilience promoting factors in the school environment. Even when instructions and class activities are given directively, resilient pupils are able to make their interaction with the teacher a responsive one by answering questions voluntarily, by involvement in clarifications and by spending time with the teacher for instruction purposes. Through their own actions and attitude, resilient pupils benefit from and contribute to resilience promoting factors in the school environment themselves. They create social support.

The differences in resilience qualities between resilient and not-resilient middle-adolescents seem to manifest differences in the demands on the school environment they make through their behaviour. These demands will be discussed in the following paragraph.

6.3.1.4   Specific demands on the school environment

Summary

Resilient and not-resilient middle-adolescents differ in the extent to which they are *dependent* on the proper organisation of the school environment for their successful development.

Because they possess the resilience characteristics of *overview*, *insight* and *positive future expectations*, resilient middle-adolescents are able to utilise potentially existing "resilience promoting" factors in the school environment and contribute to the existence of these factors. These resilience promoting factors can be subdivided into the categories of *safety* and *good education*. In cooperation with the school environment, resilient middle-adolescents create and utilise these factors.

Not-resilient middle-adolescents are more dependent on the school environment for their successful development, because resilience factors in the categories of *safety* and *good education* are relational factors in that environment. Not-resilient middle-adolescents bring less resilience characteristics into the school environment and therefore contribute less to the emergence of relational resilience factors in this environment. They thus have less *access* to potentially existing resilience promoting factors in the school environment.

In the elaboration on the bio-ecological interpretation of the qualitative research results in paragraph 6.4, these specific demands will be further discussed.

Relevant literature and interpretation

In a lot of literature on resilience, many resilient personality characteristics are mentioned (e.g. a positive nature, an outgoing personality, sense of humour, hope, intrinsic motivation, determination, self-confidence; see Appendix 2). As discussed in Chapter 2, these resilient personality characteristics contribute equally to both resilience and the outcomes of resilience. Due to these resilience qualities, middle-adolescents are able to create resilience factors at school level (e.g. supportive peers, positive relationships with teachers, a safe school environment; see Appendix 2).

On the basis of the findings in research Part B, it is likely that there is a relation between resilient personality characteristics, such as an outgoing personality, hope, determination and self-confidence, and the resilience qualities of *overview*, *insight*,

and *positive future expectations*. The resilient personality characteristics and the resilience factors at school level mentioned in Appendix 2 can be classified as *insight* and *positive future expectations*: resilient middle-adolescents have *insight* in the ways in which they can create and maintain positive relationships (e.g. supportive peers, positive relationships with teachers) in the school environment (e.g. by means of a positive attitude towards teachers and fellow pupils, through humour), and they have *positive future expectations* of a positive outcome of their efforts (hope, determination, self-confidence).

The present study complements the list of resilient personality characteristics by adding the term *overview*. In research Part B, it was found that resilient middle-adolescents initiate and maintain positive relationships with teachers and fellow pupils because they have an *overview* of the importance of these relationships for their successful development and the potential risk factors in the school environment. This *overview* enables them to *identify* and *utilise* resilient personality characteristics in themselves and resilience factors in the school environment.

By identifying and utilising resilient personality characteristics and resilience factors in the school environment, they gain access to "help" when circumstances arise which they experience as difficult. This help emerges from the relationship between the middle-adolescent and his environment, and comprises the facilitation of more *overview*, *insight* and *positive future expectations* for constructively dealing with the circumstance experienced as difficult. In their relationship with the middle-adolescent, the resilience factors in the school environment contribute to the further development of resilience characteristics, such as positive nature, outgoing personality, sense of humour, hope, intrinsic motivation, determination and self-confidence, by offering *overview*, *insight* and *positive future expectations* in dealing with challenges.

The Resiliency Model and the Resilience Cycle
In the *Resiliency Model* (Chapter 2, paragraph 2.3.3.6), Richardson et al. (1990) shed light on the steering role of the individual in establishing resilience due to individuals consciously or unconsciously choosing the way in which they "reintegrate" after a challenging experience. In summary, Chapter 2 stated that the Resiliency Model developed by Richardson et al. (1990) describes resilience as a skill to successfully

deal with stressful circumstances, which emerges and expands as a result of the transaction between an individual and his environment. In this, the individual's choice to utilise the help and support in his environment and the presence of help and support in that environment are essential prerequisites. The experience of challenging or stressful situations is, in accordance with the challenge model, critical for positive development in terms of growth and the development of resilience characteristics.

The most essential prerequisite for growth and increasing resilience characteristics of experiencing situations which are challenging or stressful, has been confirmed in research Part B. Owing to their *overview*, resilient middle-adolescents identify more circumstances as *challenging*, because they identify these circumstances as risks for the goal they have set. They know the consequences of certain behaviour and are able to identify risks on the basis of these consequences. By experiencing challenging or high-risk situations more frequently, resilient middle-adolescents appear to be more "teachable" than not-resilient middle-adolescents.

Confirmation of this finding can be found with Morales (2000). He suggests that recognising risks and support in the environment are necessary conditions for the ability of steering situations towards resilient development.

In relation to symbolic interactionism, Morales (2000) formulated the hypothesis that the not-resilient students in his study (those who did not undergo a successful educational development) had not experienced the manifestation of protective factors in their environment. The development of these not-resilient students is characterised by the presence of potentially protective factors. These potential factors carry with them the possibility to protect the individual against risk factors, however, they have not yet been activated, because they have not been *identified* by the not-resilient middle-adolescents.

Morales (2000) found that the individual's recognition of a high-risk circumstance is essential to bringing about resilient development. According to Morales, recognising a high-risk circumstance is the start of the resilience process. In his study, he found that students growing up in high-risk circumstances and who were nevertheless capable of great performances in school, passed through the so-called resilience cycle:

1. The student identifies/recognises his or her greatest risk factors in a realistic and effective manner;

2. The student is able to recognise or seek protective factors which may potentially compensate for or ease the identified and potentially negative effects of the risk factors;

3. Together, the protective factors stimulate the student's high performance in school;

4. The student is capable of recognising the value of the protective factors and to continuously implement and refine them;

5. The consistent and continuous refinement and implementation of protective factors, together with the developing vision of the desired goal by the adolescent, support the adolescent's performance in school, even if new school-related challenges arise.

Through the resilience cycle, insight has been gained into the possible reason why a certain event initiates a learning process in resilient middle-adolescents, whereas the same events do not do so in not-resilient middle-adolescents and sometimes result in dropping out of school. According to Morales' (2000) resilience cycle, the situations which did not lead to not-resilient middle-adolescents' developmental growth were *not experienced as high-risk*.

Emphasising the identification of risks as point of entry to the resilience cycle, Morales elaborates primarily on the quality of *overview*. The present study has confirmed the need for *overview* (of the entire situation in which a potential challenge arises wherein risks and resources can be recognised and wherein it is clear which behaviour is desirable or undesirable) towards a resilient development. Resilient middle-adolescents identify risk factors and protective factors. Partly because they identify their biggest risk factors, they rate the protective factors at their true value and are able to implement and refine them.

The findings in this study complement Morales' findings by adding the need for *insight* (into the opportunities and specific skills the middle-adolescent thinks he has

in order to deal with a challenge) and *positive future expectations* (which the middle-adolescent has of improving the situation and the benefits to be gained).

Furthermore, it has been found that not-resilient middle-adolescents not only identify fewer risks and protective factors, they seem to have less access or do not utilise their access to protective factors in the school environment, because they have less constructive relationships with their peers and adults in that environment.

6.3.1.5 The home situation in relation to the school environment

Summary

The socio-economic background of participants in this research is mostly low. No clear differences were observed between resilient and not-resilient participants in terms of their parents' education level or occupational status.

The risks carried by the backgrounds of both the resilient and not-resilient participants in this study, are:

1. Challenges related to being a member of an ethnic minority;
2. Challenges related to financial deficiencies;
3. Challenges related to parents' low education level.

The home environment of resilient and not-resilient middle-adolescents only differs in the extent to which it facilitates *overview*, *insight* and *positive future expectations* in the interaction between parents and middle-adolescents. The three circumstances (challenges) seem to have a positive effect when the interaction between parents and middle-adolescents is active and effective. Resilient middle-adolescents appear to attach more importance to means and ways to outgrow certain limitations because of the above-mentioned three challenges. Resilient middle-adolescents dealing with those challenges regard the school as *the* means to achieve that goal, because, in the interaction with their children, parents make a connection between the school and the chance it offers to reduce the number of limitations such as their parents had to cope with. It is then the role of the school environment to challenge, steer and motivate the resilient middle-adolescent (the challenge model, as discussed above).

Incidentally, it appears that the above-mentioned three challenges do not always apply to not-resilient middle-adolescents; far from it. But their family context does often show a low degree of active, effective relationships. This low activity is not merely determined by personality characteristics; the fact that not-resilient middle-adolescents can be very active in active, effective relationships in the school environment once *overview* has been acquired as a result of "interfering" in their daily habits, demonstrates this. In contrast to resilient middle-adolescents, this interference often only takes place when a competence reduction has already occurred: duplication or a move down to a lower level.

6.3.2   BIO-ECOLOGICAL INTERPRETATION OF RESEARCH PART B

6.3.2.1   Summary

According to the bio-ecological perspective (Bronfenbrenner and Ceci, 1994; Bronfenbrenner, 2001; Leseman, 2005; Swart & Pettipher, 2005), the development of middle-adolescents takes place through interaction between the middle-adolescent and his environment. A middle-adolescent develops according to the bio-ecological perspective because of the realisation of certain potential characteristics, which have been genetically determined. The form of expression of the middle-adolescent, and therefore of his behaviour, is, according to the perspective, "merely" a reflection of his realised genetic possibilities. The middle-adolescent has far more genetic potential, but only a small part of it is realised. Which and what measure of genetic potential are realised depends on both the middle-adolescent's environment and the middle-adolescent himself. In relation to the influence of the environment on the middle-adolescent's development, according to the bio-ecological perspective, only the genetic potential for which a need exists in the environment is activated. This need is not an objectively present need, but is experienced by the middle-adolescent as a need in proximal interaction processes with his environment. Proximal interaction processes are those interaction processes that take place between the middle-adolescent and the direct environment in which he finds himself at a certain moment (e.g. the family environment, the school environment).

Thus far, the contribution of the school context to the resilience of urban middle-adolescents could be understood by means of increasing effective interaction

processes between the middle-adolescent and his environment. However, as discussed in Chapter 1, the middle-adolescent himself gives form and meaning to his environment through his demand characteristics. In addition to shaping the environment and eliciting responses from his environment, these demand characteristics are expressed in selective patterns of attention, expression and responses by the middle-adolescent in his environment. These expressions are partly attributable to hereditary predispositions to specific characteristics, as well as to previous experiences of the individual with his environment.

Middle-adolescents thus experience a need for their own specific characteristics on the basis of their own selective patterns of attention, expression and responses, which in turn have been established by genetic predispositions and previous experiences. As genetic potential is realised through proximal interaction processes between middle-adolescents and their environment, an individual unconsciously selects which genetic potentials are realised within him through his selective patterns. The middle-adolescent therefore unconsciously controls which characteristics are established in his behaviour.

From the bio-ecological perspective on successful development as introduced in Chapter 1, it was argued that it is more the relationship between the middle-adolescents and their environment in which they posit their demands which influences successful development, than the middle-adolescents' active demands. On the basis of the bio-ecological model it was assumed that middle-adolescents differ in their access to effective proximal processes within the school environment, because of selective patterns of attention and responses and because of their own characteristics which elicit the behaviour of others in their environment. These patterns of attention and responses and characteristics arise through genetic predispositions and prior experience. Following this line of argument, it was argued that an identical school environment for middle-adolescents with different experiences in other microsystems would have a different significance, as a result of their difference in *access to* effective proximal interaction processes in the school processes and therefore as a result of educational experiences. Therefore, it was argued that in order to create effective proximal processes, middle-adolescents require different approaches by the school environment.

6.3.2.2   **A bio-ecological perspective on resilience**

The Resilience Process in the school environment

Middle-adolescents have a choice of reintegrating in a certain way when they experience a situation as challenging. In order to develop a resilient way, a situation should be identified as high-risk first, before being able to deal with that situation constructively. To do so, *overview* of the situation is needed. Resilient middle-adolescents already have this *overview*, or are able to acquire it in the school environment with the help of important people in that environment, such as mentors, teachers or friends. These important people can subsequently contribute to *insight* in the skills needed to deal with the challenge, and to *positive future expectations* of a reward for doing so.

The microsystem in the school environment: Demand characteristics and effective proximal interaction processes

Facilitation of *overview*, *insight* and *positive future expectations* takes place in effective proximal interaction processes between middle-adolescents and their school environment. However, a constructive relationship should already exist between middle-adolescents and their supervisors, such as mentors, teachers or friends. Not-resilient middle-adolescents create and maintain less constructive relationships with supervisors or friends. They thus have less access to effective proximal interaction processes and therefore have less access to acquiring *overview*, *insight* and *positive future expectations*. The needs for *safety* and *good education* are *relational needs*. The relationship between the specific pupil and the school environment determines whether trust and safety will be established. By contributing to disruption, some pupils deny themselves the order in class which they actually need. Other pupils are capable of jokingly expressing their dissatisfaction towards teachers about a situation and their need for a different situation. In summary, it may be said that the ways in which the school environment can contribute to *safety* and *good education* in the school environment (see paragraph 6.3.1.2) are ways in which the school environment creates room for effective proximal interaction processes. The research results also show how the reciprocity of interaction is decisive for the effectiveness of proximal interaction processes.

The mesosystem: The relationship between the home environment and the school environment

The interaction between the middle-adolescent and the school environment is connected as a microsystem in a mesosystem to the microsystem of interaction between the middle-adolescent and his home environment: the interaction between the middle-adolescent and his home environment contributes to the measure of resilience qualities with which the middle-adolescent enters the school environment. Resilient middle-adolescents are more active in effective proximal interaction processes in the home environment than not-resilient middle-adolescents. This finding is in accordance with the bio-ecological perspective on successful development, illustrated in Chapter 1 (paragraph 1.5.4.): when the quality of proximal interaction processes is low, then the present genetic potentials do not evolve into effective development. When the quality of the proximal processes increases, the effective development of an individual will also increase as a result of the genetic potentials being realised by the interaction processes.

The mesosystem: microsystems in the school environment

Arguing from the bio-ecological perspective, through their dispositions middle-adolescents themselves influence the occurrence of effective proximal interaction processes. After all, proximal interaction processes should be mutual and reciprocal to be effective. The school context can *offer* effective proximal interaction processes in the form of mentors or teachers. However, these only have a positive influence on the development of middle-adolescents if middle-adolescents are themselves active in their relationships with these mentors and teachers. Moreover, especially in the school context a great number of interaction processes are not by definition aimed at successful development, such as the interaction with classmates and friends. These do prove to contribute to their successful development, however. The interaction between the middle-adolescent and their classmates is connected as a microsystem in a mesosystem to the microsystem of interaction between the middle-adolescent and adults in the school environment. Resilient middle-adolescents create access to resilience promoting factors in the school environment by not responding to gossip or challenges to fight and by refraining from bullying: a sense of *safety* contributes to experiencing access to *good education.*

The chronosystem: the phase of middle-adolescence

Bronfenbrenner and Ceci (1994) submit that in a child's early life it is largely adults who give form and meaning to proximal processes. Although children, from birth, influence proximal interaction processes through selective attention, behaviour and response, parents still have a dominating influence in the early stages of development. In the course of his development, a middle-adolescent will have developed more patterns of selective attention, behaviour and response; these will dominate his interacting with the school environment and his giving form and meaning to a greater extent than in his childhood. Although the school environment can improve the middle-adolescent's exposure to effective proximal interaction processes, in terms of attention, behaviour and response it is up to the individual adolescent to enter the proximal interaction processes which are effective for his successful development. The specific phase of middle-adolescence has implications for the way in which the school environment will have to actively facilitate the opportunities for effective proximal interaction process and initiate and maintain these processes.

The exosystem: the relationship between external institutions and the school environment

In the form of maintaining contact between the school environment and external institutions, the exosystem influences the interaction between the middle-adolescent and the school environment: the interaction between the school environment and external institutions can contribute to the presence of resilience qualities in the school environment.

6.3.3 RECOMMENDATIONS FOR EDUCATIONAL PRACTICE

In relation to literature mentioned earlier (Chapter 2, paragraph 2.3.3.1), it may be argued that resilient middle-adolescents develop in the school environment according to the *challenge model* (Fergus & Zimmerman, 2005): small challenges in the school environment suffice to initiate successful development, because they are able to deal with these challenges constructively themselves or ask for help with these challenges. As regards the school environment, this means that it should challenge these resilient middle-adolescents, for instance in terms of high expectations, learning to collaborate with fellow pupils and learning to deal with conflicts between fellow pupils. In addition, the school environment should offer possibilities for creating constructive

relationships between resilient middle-adolescents and adults and fellow pupils by offering opportunities for informal conversations and activities.

Not-resilient middle-adolescents do not develop in the school environment according to the challenge model, but more as illustrated by the *compensation model* (Chapter 2, paragraph 2.3.3.2). The compensation model (Hollister-Wagner & Foshee, 2001; Fergus & Horwood, 2003; Fergusson & Zimmerman, 2005) describes resilience as the outcome of a process in which a protective factor and the risk factor do not interact with each other, but both have an independent influence on the individual. Not-resilient middle-adolescents do not identify circumstances as challenging, as a result of which they tend not to learn from these circumstances. When they do identify a circumstance as challenging, they do not tend to identify in themselves or their environment the skills and help needed to deal with the challenge. Moreover, they have less access to help in their environment, because they create their access to help less strategically. This means that the school environment should facilitate *overview*, *insight* and *positive future expectations* for not-resilient middle-adolescents more directively. The school environment should compensate for missing, non-activated skills, so that the not-resilient middle-adolescents will be able to constructively deal with high-risk circumstances. The school environment should more directively impart *overview* to not-resilient middle-adolescents in terms of *school tasks, mechanisms and patterns in behaviour of people in that environment; expectations regarding one's own behaviour; situations that may arise in the school environment; risks for one's own development that may be present in the school environment; and the presence of potential resources to assist one's own development.* This could be done for instance by being strict and clear in the classroom, by drawing up a contract on desired and undesired behaviour and the consequences of certain behaviour, by allocating or allowing pupils to choose a personal school counsellor and by regularly offering help without the middle-adolescent asking for it. When *overview* is achieved, the not-resilient middle-adolescent is capable of identifying challenges. When challenges have been identified, the school environment needs to directively provide *insight* by pointing out to middle-adolescents their own existing possibilities and skills to deal with situations and any problems or risks. The not-resilient middle-adolescent and the school environment should acquire this *insight* together by examining together which strategy works best for the specific middle-adolescent (e.g. listening to music in class

and during examinations to improve concentration, sitting away from the others in class). In addition, the school environment should directively offer the not-resilient middle-adolescent *positive future expectations* of the improvement of a situation after a problem or risk has occurred, and of the benefits to be gained by making an effort to deal with a problem or risk. Meanwhile, the school environment should continuously remind the middle-adolescent of the *overview*, *insight* and *positive future expectations.*

In summary, the daily situations in the school environment offer enough tools to contribute to the resilience of resilient and not-resilient middle-adolescents. These should, however, be recognised by both the middle-adolescent and the adults in the school environment as opportunities for development, which should subsequently be grasped in order to learn to deal with these challenges constructively.

In the next paragraph, the results of the qualitative research will be placed in the light of the quantitative research part, recommendations for follow-up study will be made, and the limitations of the study presented here will be discussed.

6.4 INTERSUBJECTIVE KNOWLEDGE THROUGH INDUCTIVE AND DEDUCTIVE LOGIC

6.4.1 INTRODUCTION

The present study utilised both deductive and inductive knowledge development. In Chapter 2, paragraph 3.4.1, the Research Cycle developed by Tashakkori and Teddlie (2003) was presented, in which deductive and inductive logic is combined in order to develop intersubjective knowledge. The deductive research part of the present study has informed the inductive part through the possibility of identifying middle-adolescents as resilient and not-resilient on the basis of their behaviour in dealing with circumstances experienced as challenging. The inductive research part has served as validation of the deductively developed definition of resilience and the VVL developed on the basis of this definition. Also, the inductive research part has informed the deductive part through findings on the establishment of behaviour which the VVL identified as "Resilient Behaviour", and on additional conduct which can be considered as "Resilient Behaviour". In this paragraph, the results of both research

parts will be combined in the discussion on the definition of resilience and the validity of the VVL. At the end of this paragraph, some concluding remarks will be made on the use of the VVL.

6.4.2 THE DEFINITION OF RESILIENCE

The inductively acquired research results confirm the deductively developed definition of resilience. Resilience is the ability to identify and utilise internal resilience characteristics (*insight*) and to identify and utilise resilience qualities in the (school) environment (*overview*) when circumstances are experienced as difficult or challenging. The interaction between the middle-adolescent and the (school) environment generates constructive outcomes in the development of the middle-adolescent and an increasingly flexible approach by the middle-adolescent to challenging circumstances (such as increasing *overview*, *insight* and *positive future expectations*).

The qualitative research results have provided insight into the conditions for the establishment of resilience: the identification of high-risk or challenging circumstances (*overview*), *access* to resilience qualities in the (school) environment, *insight* in personal skills and possibilities to deal with circumstances experienced as challenging, and *positive future expectations* of a constructive outcome of the deployment of these skills.

6.4.3 THE VALIDITY OF THE VVL

6.4.3.1 The establishment of Resilient Behaviour

The establishment of "Resilient Behaviour" occurs on the basis of the resilience qualities of *overview*, *insight* and *positive future expectations*. These resilience qualities are in the first place established in effective interaction processes between resilient middle-adolescents and their home environment.

Behaviour which on the basis of the qualitative research results can be referred to as "Resilient Behaviour", are:

- Keeping a distance from negative influence of peers;
- Actively selecting constructive friendships;

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- Creating and maintaining constructive relationships with adults in the school environment;
- Actively participating in education.

In the qualitative research results, effective proximal interaction processes in the home environment in which *overview*, *insight* and *positive future expectations* are facilitated, are illustrated by recurring conversations between parents and resilient middle-adolescents about events in school, possible high-risk situations, ways of dealing with high-risk situations constructively and trust in the middle-adolescent.

This behaviour and these processes confirm the applicability of a number of items in the VVL's "Resilient Behaviour" Component and complement these items. As concerns the VVL's validity, it may be concluded that the formulated items correspond to the behaviour that can be recognised in the resilient participants in the qualitative research Part B. This indicates a certain degree of construct validity of the VVL: Component 1 of the VVL measures behaviour that can be identified as resilient behaviour. The additional items reflect proactive behaviour. This proactive behaviour facilitates the access to resilience promoting factors in the school environment.

6.4.3.2   Confirmation of applicability of existing items in Component 1

The behaviour of "Keeping a distance from negative influence of peers" is included as item in the VVL (*32. If my friends want to so something I know will cause problems then I won't participate*.).

The behaviour of "Actively participating in education" is included in the VVL as two items (*16. If a teacher is angry with me then I will try to concentrate more on my schoolwork; 30. If I get a lot of poor marks for a particular subject I will find someone who can help me with my homework for that subject*.).

The effective proximal interaction processes between the middle-adolescent and his or her home situation have been included in the VVL as three items (*1. If I have to make a difficult decision then I talk to someone at home who can give me advice; 23. I try to*

help make the best of things when there are problems at home; 26. I apologise when my parents are angry with me and they are right.).

6.4.3.3 Suggestions for creating additional items for Component 1

Additional items in the area of "Keeping a distance from negative influence of peers" could be formulated with regard to refraining from bullying and not responding to challenges to fight.

Additional items in the area of "Actively participating in education" could be formulated in regard to presence in school and actively participating in class.

The behaviour of "Actively selecting constructive friendships" has as yet not been included in the VVL; it represents proactive behaviour which facilitates access to resilience promoting factors in the school environment. A number of new items could be created in this respect.

The behaviour of "Creating and maintaining constructive relationships with adults in the school environment" has as yet not been included in the VVL; it represents proactive behaviour which facilitates access to resilience promoting factors in the school environment. A number of new items could be created in this respect.

Additional items in the area of "Effective interaction processes in the home environment" could be formulated in terms of parents facilitating *overview*, *insight* and *positive future expectations* for the middle-adolescent.

6.4.3.4 The establishment and effect of Not-Resilient Behaviour

Not-resilient middle-adolescents demonstrate little *overview*, *insight* and *positive future expectations*. As regards the establishment of *overview*, *insight* and *positive future expectations*, it may be said that these are either not facilitated in the home environment for not-resilient middle-adolescents, as a result of which they act without *overview*, *insight* and *positive future expectations* in the school environment, or that these are *not acquired by themselves* when they are confronted by challenging situations. In order to acquire *overview*, not-resilient middle-adolescents are more dependent on their school environment than resilient middle-adolescents. However,

because of their limited activity in constructive relationships with adults in the school environment, they seem to attach less value to these adults' warnings of the risks of their behaviour. Therefore, they also experience the presence of help in constructively dealing with risks less quickly. They have little *insight* in their own skills and possibilities to prevent risks or solve problematic situations. Because they have little *insight* in their own possibilities, they have little *positive future expectations* of a positive outcome of their efforts.

The behaviour of the participants identified as not-resilient is mainly characterised by:
- Responding to or participating in negative influence of peers;
- Not selecting constructive friendships;
- "Not creating" and not maintaining and/or disrupting constructive relationships with adults in the school environment;
- "Not participating" in education.

In the qualitative research results, non-effective proximal interaction processes in the home environment in which no *overview, insight* and *positive future expectations* are facilitated are illustrated by a reactive attitude of parents towards school (school is only a topic of conversation if negative messages about the middle-adolescent are received from the school environment) and towards not-resilient middle-adolescents walking out on conversations about school and about their behaviour in school.

This behaviour confirms the applicability of a number of items in the VVL's "Not-Resilient Behaviour" Component and complements these items. As concerns the VVL's validity, it can be concluded that the formulated items in Component 2 correspond to the behaviour that can be recognised in the not-resilient participants in the qualitative research Part B. This indicates a certain degree of construct validity of the VVL: Component 2 of the VVL measures behaviour that can be identified as not-resilient behaviour. The additional items reflect non-proactive behaviour and counterproductive behaviour. This counterproductive behaviour hinders the access to resilience promoting factors in the school environment.

6.4.3.5 Confirmation of applicability of existing items in Component 2

The behaviour of "Responding to or participating in negative influence of peers" is included as item in the VVL (*21. If my friends want me to do something that I would rather not do, I will go along with their plan anyway.*).

The behaviour of "Not creating and maintaining and/or disrupting constructive relationships with adults in the school environment" is included in the VVL as three items (*17. I stop going to school if there are problems at home. 24. If I'm feeling anxious about problems at school then I won't go the next day; 31. If I'm feeling anxious about problems at school then I'm really unpleasant to the teachers.*).

The behaviour of "Not participating in education" is included in the VVL as two items (*15. If I get a lot of bad marks for a subject then I stop learning that subject; 24. If I'm feeling anxious about problems at school then I won't go the next day.*).

The non-effective proximal interaction processes between the middle-adolescent and his or her home situation have been included in the VVL as two items (*9. I am really unpleasant to my family, if I have had an argument with my friend; 18. If I really want something and my parents won't pay then I'll argue with my parents.*).

6.4.3.6 Suggestions for creating additional items for Component 2

Additional items in the area of "Responding to or participating in negative influence of peers" could be formulated in terms of taking part in bullying, responding to challenges to fight and joining in with truancy or criminal activities.

The behaviour of "Not selecting constructive friendships" has as yet not been included in the VVL. A number of new items could be created in this respect.

Additional items in the area of "Not creating and not maintaining and/or disrupting constructive relationships with adults in the school environment" could be formulated in regard to avoiding teachers and mentors, "not asking for help" when circumstances are experienced as difficult and pestering of teachers.

Additional items in the area of "Not participating in education" could be formulated with regard to not doing homework, disrupting the order in the classroom and not asking for help in understanding the subject matter.

Additional items in the area of "Non-effective interaction processes in the home environment" could be formulated in regard to walking away from conversations with parents about school, about not conversing at home about the middle-adolescents' behaviour in the school environment and on the home environment not expressing trust in the middle-adolescent.

6.4.3.7 "Flexible behaviour" and "Tolerance for negative affect": Component 3

In the elaboration on Component 3, it was argued that additional items should be created in regard to a "*tolerance for negative affect*" and "*flexible behavioural repertoire*". Confirmation was found in the qualitative research results for the ability to tolerate negative feelings and the possession of a *flexible* behavioural repertoire. Resilient middle-adolescents who, for instance, were bullied, were capable of tolerating the unpleasant experience of being bullied due to their *overview* of the bullying mechanisms, their *insight* in the ways in which they would be the least troubled by this bullying, and their *positive future expectations* of ending this bullying if they would deal with it constructively. To them, this constructively dealing with bullying meant that they did *nothing* and did *not respond* to bullies. This reaction could be interpreted as non-active problem-solving behaviour. It should nevertheless be interpreted as resilient behaviour: carrying on despite negative emotions and experiences. At other times, these same resilient middle-adolescents did demonstrate active problem-solving behaviour. Having both active problem-oriented strategies and avoidance strategies at one's disposal can be interpreted as possessing a flexible behavioural repertoire. It may be concluded from this that in the qualitative research Part B confirmation has been found for the suggestion that additional items can be created for Component 3 with regard to a "tolerance for negative affect" and a "flexible behavioural repertoire".

6.4.4 CONCLUDING REMARKS ON THE VVL

Labelling middle-adolescents as not-resilient can imply a deficit model in which a middle-adolescent should acquire resilience qualities *before* he can function successfully in the school environment. However, the VVL is aimed at identifying where not-resilient middle-adolescents' needs lie for gaining access to successful development in the school environment. The identification of these needs can be used to devise new ways in which the school environment can be adapted towards becoming an environment where middle-adolescents gain access to factors which contribute to their successful development, such as *safety* and *good education*. With these, middle-adolescents can acquire the resilience qualities of *overview*, *insight* and *positive future expectations* and further develop the skill of constructively dealing with circumstances which are experienced as difficult. The results and findings in research Part B offer tools for the way in which the school environment can be adapted in order to facilitate the possibilities to support resilient as well as not-resilient middle-adolescents in increasing their resilience. These have been discussed in paragraph 6.3.3.

6.5 REMARKS ON THE RESEARCH DESIGN

As Patton (1990, in Marshall & Rossman, 1999) states, there is no perfect research design. According to Marshall and Rossman (1999), a discussion of the study's limitations demonstrates that the researcher understands this reality. This understanding implies that no overweening claims are made about generalisability or conclusiveness relative to what is learned in the present study. The theoretical frame and traditions adhered to place limits on the research. By choosing a definition of resilience within a specific context, the conclusions are applicable solely within that definition and context.

In this study, both quantitative and qualitative methods were used. The quantitative study was essential preliminary research, proposed to reliably identify resilient adolescents. The qualitative method was used to gain insight in the relationship between school context and resilience, the main research question. The small sized sample of the qualitative study and the recognition of the uniqueness of personal truth prevent the findings from being generalisable in the statistical sense, but the findings

might suggest the relevance of researching the same question in the same research design in other contexts.

The emergent theoretical model of The Resilience Process in the School Environment (Paragraph 6.3.1.1) was the researcher's interpretation of 21 participants' perceptions of their school environment, their own behaviour and thinking in that environment, their background in relation to their school environment, and their reasoning about these elements. As is frequently the case in qualitative research, the results of this analysis are unique to the particular researcher, participants and context of the study. The quantitative data can claim to represent at least five schools in respect of their resilient and not-resilient middle-adolescents, the qualitative data can claim to represent at least three schools in that same respect. The aim set for creating intersubjective knowledge has been pursued and achieved by applying various literature controls on the analysis' results. These findings were then compared with findings in other studies and handbooks for professional practice. Also, the analyses and findings were amply discussed with colleagues in educational practice and fellow researchers. Similarities and differences between the analysis results and other findings or views were interpreted, detailed and further examined until new, additional knowledge was given shape as the emergent theoretical model. The transferability of this theoretical model takes place as the reader examines these results in the context of specific circumstances of interest.

Furthermore, at the beginning of the study the following limitations of the quantitative research Part A were identified and anticipated: (i) The lack of an established identification instrument for resilient individuals; (ii) The proposed quantitative instruments, the VVL and the NPV-J, contain personal questions. As in many survey studies, the instruments were used in the classroom with all 20-30 students present. Such circumstances are not ideal for the reliability and validity of an instrument. Therefore, the privacy of the respondents was guarded in administering the questionnaires, and the presence of a trusted teacher was ensured. The VVL's reliability and validity proved to be well.

One of the limitations of the qualitative research Part B is indicated by Marshal & Rossman (1999), who state that the research method of interviewing has limitations and weaknesses. Interviews involve personal interaction; cooperation is essential.

Participants may have been unwilling or uncomfortable sharing their stories with me, or they may have been unaware of recurring patterns in their lives. During the interviews it became clear that especially not-resilient participants in Research Cycles 3 and 4 did not voluntarily take part in the study. Their reason for their unwillingness was that they received EUR 10 for their participation in another study. It was then decided to retroactively give all participants EUR 10 for their participation in the interviews, and to encourage new participants with the prospect of the same amount. In order to prevent participants not seriously cooperating after receiving the EUR 10, they were informed that they would only receive the amount after the interview, when it had become clear that they had seriously and honestly answered the questions. Furthermore, the great value of their honest participation was emphasised. Any negative effects of offering EUR 10 on the reliability of the research data may be regarded as a study limitation.

In analysing the qualitative research data, some findings were at "over school" level, due to comparing the interview data of resilient participants and their not-resilient counterparts with each other, regardless of their specific school environment. This means that several times merely appropriate illustrations were found for two out of the three school sites. As limitations of the research it could be said that new interviews should have taken place in order to find appropriate illustrations or to falsify a finding. The research design regarding the choice of three resilient and three not-resilient middle-adolescents per school site and practical considerations, such as the approaching examinations, have however delimited the total number of interviews and thus the research process.

6.6 RECOMMENDATIONS FOR FOLLOW-UP RESEARCH

6.6.1 NOT-RESILIENT MIDDLE-ADOLESCENTS

The findings in the present study identify factors such as *clarity*, *strictness*, *creating opportunities for development*, *offering alternatives for behaviour*, *expressing trust and positive future expectations* and *activating self-reflection* as resilience-promoting factors. Follow-up research could focus on ways in which constructive relationships can emerge in the school environment between that school environment and the young people therein, whereas these young people through their behaviour do not contribute to these relationships themselves. How can resilience be activated in not-

resilient young people? Which experiences and factors can further be identified? What are the effects of directively facilitating *overview*, *insight* and *positive future expectations* for not-resilient middle-adolescents?

The present study did not focus on the school results in terms of marks. The interviews showed that the resilient participants achieved better school results than their not-resilient counterparts, and that not-resilient participants repeated classes more often or even left school prematurely. These findings could be tested in follow-up research. Does resilience lead to better school results, and does promoting resilience in not-resilient middle-adolescents lead to better school results for these middle-adolescents?

6.6.2 RESILIENT MIDDLE-ADOLESCENTS

With regard to resilient middle-adolescents, it could be examined how promoting resilience in young people from a low SES background relates to promoting resilience in young people from a high SES background. Does a high SES contribute more to resilience like resilience literature supposes and, if yes, what does this contribution entail?

In the present study it was found that resilient middle-adolescents already possess resilience qualities when they enter the school. Interesting research could be carried out into the effect of additional promotion of these resilience qualities. Does additional promotion of resilience qualities lead to even better school performance and development of resilient middle-adolescents?

6.7 SUMMARY

In the present study, a theoretical model of the way in which the school environment contributes to the resilience of middle-adolescents was constructed. Although risk and resilience literature emphasise numerous risk factors for healthy development, the assumed risk factor of an urban, low SES family background did not prove to have a decisive negative effect on the successful development of middle-adolescents in the school environment. Effective proximal interaction processes in the family background set the stage for resilience in the school environment and for bouncing beyond the limitations that might be set by an urban, low SES status. When, in these

processes, parents can make a connection between the situations they experience as difficult and the chances the school environment offers, then the circumstances of a low SES status are in fact sources of motivation for middle-adolescents to labour for their successful development. To be able to do so, they above all have a need for the skill to connect their circumstances to their own behaviour. Additionally, they need:

- *Overview* of the risks and challenging circumstances they can expect and which could hinder their successful development;
- *Insight* in the skills they have for dealing with these challenges;
- *Positive future expectations* of the possible positive outcomes of their efforts.

These middle-adolescents' needs are met in *effective* proximal interaction processes in the home situation. This finding is in accordance with the bio-ecological perspective on successful development, illustrated in Chapter 1 (paragraph 1.5.4.). Effective proximal interaction processes in the home situation have a greater impact on successful development than the level of socio-economic status. An addition to the bio-ecological perspective on successful development is the fact that the school environment can offer proximal interaction processes, but that their effectivity is established in the quality of the relationships between the school environment and middle-adolescents. Middle-adolescents themselves influence that quality. For a good quality, not-resilient middle-adolescents are more dependent on their school environment.