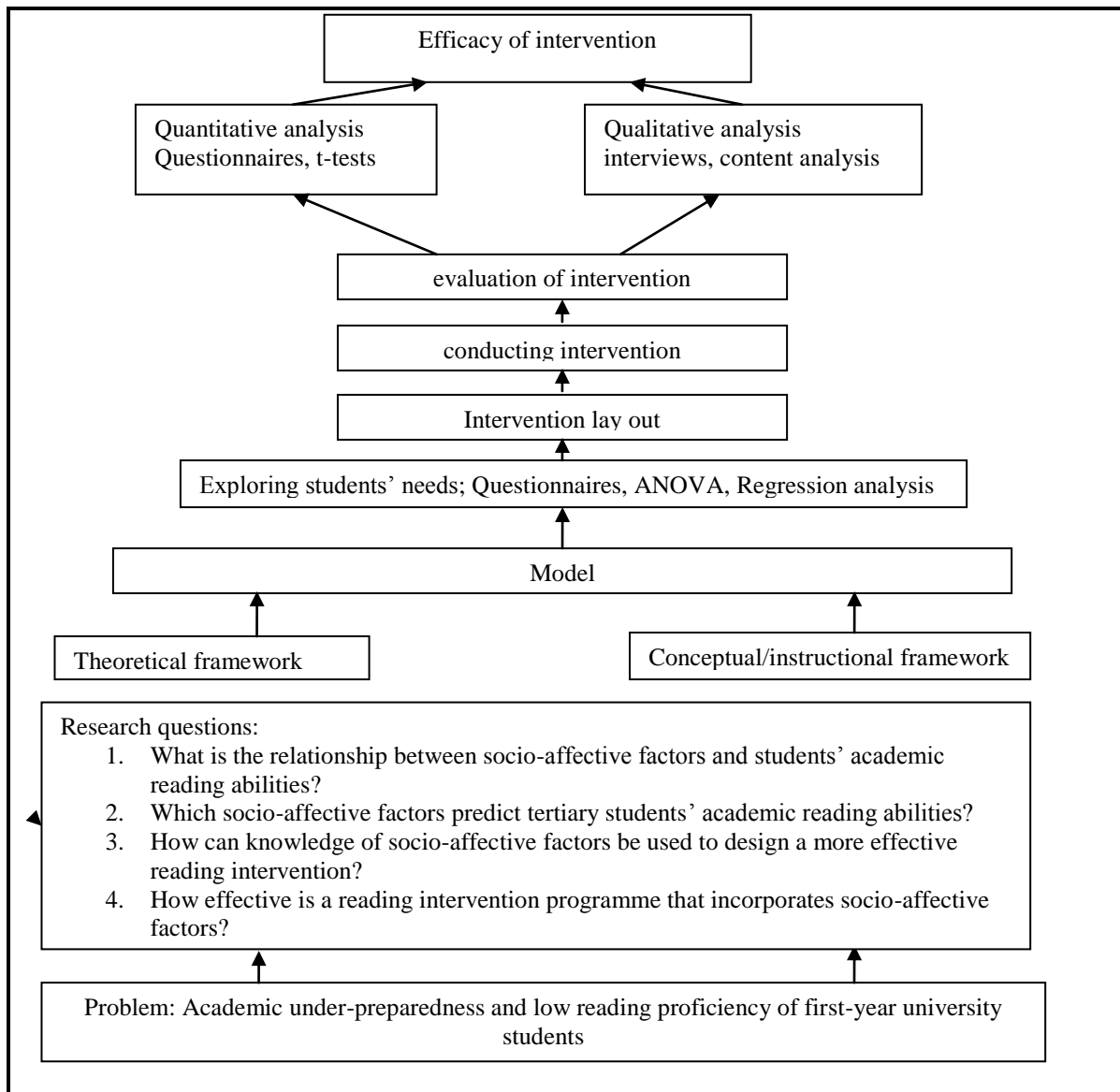# Chapter 10: Conclusion

10.1 Introduction

The aim of this research study was to explore a socio-affective approach to improving students' reading proficiency. More specifically, the purpose of the research was to investigate the socio-affective factors that impact on the academic reading abilities of first-year undergraduate students, and to devise pedagogical strategies for manipulating these factors to their advantage. The main objectives were to (1) explore the relationship between socio-affective factors and academic reading ability of the target group; (2) identify the socio-affective factors that strongly predict these students' academic reading ability; (3) design and implement an intervention that would improve the reading skills of students by focusing on socio-affective factors in particular; and (4) evaluate the effectiveness/efficacy of the intervention. In relation to the aims and objectives, the following research questions were formulated.

1. What is the relationship between socio-affective factors and students' academic reading ability?
2. Which socio-affective factors strongly predict tertiary students' academic reading ability?
3. How can knowledge of socio-affective factors be used to design or contribute towards designing more effective reading interventions?
4. How effective is a reading intervention programme that incorporates socio-affective factors?

Figure 10.1 below shows the processes that were utilized in answering the research questions and how they culminated in the evaluation of the intervention.

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│                    │  Efficacy of intervention │                      │
│                    └──────────────────────────┘                       │
│        ┌────────────────────┐      ┌────────────────────┐             │
│        │ Quantitative analysis│     │ Qualitative analysis│            │
│        │ Questionnaires, t-tests│   │ interviews, content analysis│    │
│        └────────────────────┘      └────────────────────┘             │
│                    ┌──────────────────────────┐                       │
│                    │  evaluation of intervention │                    │
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│                    ┌──────────────────────────┐                       │
│                    │   conducting intervention  │                     │
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│                    │    Intervention lay out    │                     │
│                    └──────────────────────────┘                       │
│      ┌──────────────────────────────────────────────────────┐        │
│      │ Exploring students' needs; Questionnaires, ANOVA,      │       │
│      │ Regression analysis                                    │       │
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│   ┌────────────────────┐          ┌────────────────────────────┐     │
│   │Theoretical framework│          │Conceptual/instructional framework│ │
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Research questions:
1. What is the relationship between socio-affective factors and students' academic reading abilities?
2. Which socio-affective factors predict tertiary students' academic reading abilities?
3. How can knowledge of socio-affective factors be used to design a more effective reading intervention?
4. How effective is a reading intervention programme that incorporates socio-affective factors?

Problem: Academic under-preparedness and low reading proficiency of first-year university students

Figure 10.1: Summary of the research strategy to address the aims of the study

Reading the diagram from the bottom-up, the problem (students' academic under-preparedness and poor reading ability) is stated and the discussion grounded in a theoretical framework (based mainly on Grabe and Stoller 2002) and on a conceptual and instructional framework, which is an adapted and contextualised version of Guthrie and Wigfield's (2000) model. Emanating from the discussion, an appropriate model for UP students in the South African context was designed and students' socio-affective profiles that pointed to their socio-affective needs in reading were explored. Based on this information, an academic reading programme was designed and conducted with intervention and control groups sampled from *High/At Risk* and *Low Risk* students. The efficacy of the intervention was evaluated through a mixed methods approach that used

mainly quantitative analyses of questionnaire surveys, supported by qualitative analyses of interview responses. The results of both analyses were integrated and discussed to determine the efficacy of the intervention.

Based on Figure 10.1, this chapter attempts to indicate to what extent the research questions have been answered in order to draw empirically based conclusions from the findings. First, the research problem is restated, after which the theoretical and conceptual framework of the research study is summarised. Thereafter the main threads of the study are drawn together by summarising the answers to the four main research questions that informed the study. Finally, the limitations of the study and the implications of the research findings are discussed and recommendations made.

10.2 Research problem, theoretical and conceptual framework

Given that students' under-preparedness is a concern for most South African higher education institutions, various attempts have been made to address this educational challenge. At tertiary level, students are required to read for comprehension and to learn, as well as read critically by drawing inferences, evaluating and synthesising information. In sum, students are expected to engage in higher order reading skills. Unfortunately, for a number of students who enter tertiary education the ability to use these skills is lacking, especially those deemed to be at risk academically. The causes for this poor reading ability, and frustration level reading of many students, are related to poor social and cultural reading environment, a poor primary and high school education system that does not promote reading and that leaves them with low affective levels for reading, and concomitant low reading proficiency. In finding solutions to these challenges, a number of tertiary institutions have devised ways to improve students' academic reading and writing. However, most of these programmes are solely cognitive-oriented. As much as these cognitive approaches have merit, they do not obtain optimal results.

Although affect has been acknowledged as important in reading development, its practical incorporation into instruction and research is lacking. This study integrated affective and cognitive aspects into the development of students' reading proficiency. In other words, cognitive reading instruction was embedded in an affective framework. Taking the various forms of reading required at tertiary level (reading to learn, critical reading, use of

metacognition) into consideration, and including motivational instructional techniques (Guthrie & Wigfield 2000), issues pertaining to L2 reading instruction (Bernhardt 1991a; 1991b; 2005; Grabe and Stoller 2002) and L2 motivational strategies (Dörnyei 1994, 2001b; Dörnyei & Ushioda 2011), a model was designed for tertiary level reading development that uses an affective approach (Figure 3.4). The position of the model is that L2 reading instruction needs to be undertaken within an affective framework that includes collaboration, autonomy, teacher involvement as well as extrinsic and intrinsic motivational support among others. In line with the model, students' profiles were explored to determine the relationship between socio-affective factors and students' reading ability or proficiency. An ANOVA test showed a robust relationship between students' motivation, attitude, interest, self-efficacy, strategy use and reading habits on one hand, and their reading ability on the other. A regression analysis further showed self-efficacy as the strongest predictor of students' reading proficiency out of all the variables fed into the analysis. Based on the results of the needs analysis and the theoretical justification (Bernhardt 1991a; Grabe & Stoller 2002, Guthrie & Wigfield 2000, Kumaravadivelu 2003), an intervention programme was designed and conducted. This programme served as enrichment to the current Academic Reading programme at the University of Pretoria.

The efficacy of the intervention was evaluated by using t-tests to analyse pre- and post-intervention questionnaire survey results, as well as Cohen's d to determine effect sizes, and content analysis to integrate interview responses. The qualitative data corroborated the quantitative data, and both showed that students gained on three levels – affective, social and cognitive – through the affective approach, social interaction and cognitive instruction.

10.3 Summary of results

In relation to research Question 1, the quantitative analysis from the ANOVA test showed that there is a robust relationship between socio-affective factors and students' academic reading ability, which justified integrating a socio-affective component into the existing cognitive academic reading programme. The analyses showed that the poorer a student's reading background is, the lower are his/her affective levels, and consequently, also his/her reading proficiency, indicating a relationship between socio-affective factors and reading ability. Thus, poor reading background may influence students' affective levels for

reading, and ultimately, their reading proficiency levels and reading ability. With regard to research question 2, a Cumulative Logit analysis conducted on socio-affective factors showed that of the factors that strongly predicted the sampled students' reading ability, self-efficacy and motivation were the strongest predictors, with self-efficacy being the best predictor. These aspects were therefore given prominence in the intervention programme.

In relation to research question 3, a reading intervention programme that pivoted on social and affective factors was designed, based on the findings of the questionnaire data, which are: (1) a relationship between socio-affective factors and students' reading ability, and (2) the strong predictors of this relationship (i.e. self-efficacy, intrinsic motivation and strategy use).

The fourth and final objective, relating to research Question 4, was to evaluate the effectiveness/efficacy of the intervention. This objective was addressed using mainly quantitative, but also qualitative analyses. Quantitative data were analysed using t-tests. The results showed that the intervention classes had improved significantly in affective reading levels on most of the categories. Effect sizes using Cohen's d showed medium to large improvements on all categories, with the exception of attitude in the *High/At Risk* group and extrinsic motivation in the *Low Risk* group. The control classes showed minimal improvement or decreased affective levels. This shows that without affective intervention, students' affective levels in reading improved minimally or decreased for this cohort of students. This could affect their reading habits and negatively influence the development of their reading ability. As shown by Guthrie and Wigfield (2000), Guthrie, Wigfield, Barbosa et al. (2004), Pretorius (2000, 2007), and indicated by Alderson (2000), Burton (2011), and Grabe and Stoller (2002), students' affect influences their reading ability. This relationship between affect and reading ability was further confirmed by the results of the exploratory study that was used to answer research question one. As a result of this obvious relationship, affective strategies should be employed in improving students' academic reading ability. Thus an affective approach is more desirable in improving students' reading ability than solely cognitive instruction.

10.4 Limitations and further research

Although new knowledge has been constructed through the research reported on in this study (this is the first study in South Africa that looks in detail at socio-affective factors in reading at tertiary level), there are some limitations, including the use of a non-standardised test, the inability to administer the Test of Academic Literacy Levels (TALL) after the intervention, the duration of intervention, and the fluidity of classes.

Use of a non-standardised test

One of the limitations of this study is the fact that a standardised test was not used to assess the reading improvement of the students. Although pre- and post-tests were written, these results were not used for comparison in the study, as they were not standardised tests, and were compiled for reasons other than the research. The pre- and post-tests were compiled from different previous examination papers for the Academic Reading module, and served as an end of quarter test for students taking the module. For the *Low Risk* group, the pre-test served as a consistency measure to obtain a baseline profile, whereas the posttest served as a summative assessment for grading purposes. For the *At Risk* group the only purpose of the pre- and post-tests were to measure the effectiveness of the intervention. The tests therefore, in addition to being non-standardised, did not serve the same purpose for the *At Risk* and the *Low Risk* groups. For these reasons, the test results were not used for comparison but for selection of the sample group for the qualitative data (i.e. interviews).

Despite these limitations it is worth mentioning that the pretest means of the non-standardised reading test showed differences in performance between *At Risk* students and *Low Risk* students, and the postest means showed differences between the control and intervention classes. In other words, pretest results, in terms of means, showed that the *Low Risk* students performed better than the *At Risk* students, and posttest means showed that in each group (*At Risk* and *Low Risk*) the intervention classes performed better than the control classes. These results are stated with caution as no statistical analysis was done due to the reasons given above. Future research should administer standardised tests as pre- and post-intervention tests.

Pre- and post-test of academic or reading literacy.

Ideally, in a study like this pre- and post-tests in academic or reading literacy should be administered and the results compared to determine the effectiveness of the socio-affective intervention on literacy levels. However, although it was initially planned to administer TALL at the end of the intervention, this was not possible due to logistical problems. It was difficult to track down all the students after the module had ended, especially the students in the *Low Risk* group who had completed the module and were no longer affiliated to the Unit. It is suggested that for future research, a pre- posttest design for the independent and dependent variables would be desirable. That is, a socio-affective questionnaire and an academic or reading literacy test such as TALL should be administered at the beginning and end of a semester or year's intervention in order to determine changes in the socio-affective levels as well as the academic literacy levels of the students.

Time constraints

As mentioned earlier, the duration of the intervention for this study was rather limited. In addition, the standard programme of the modules had to be followed, which limited the number of tasks and exercises that were done, especially by the *At Risk* students. The length of time for such an intervention should preferably be a year. As emphasised by Pretorius (2000:324) comprehension effects only emerge after extensive training, and new strategies are not learned overnight. The long-term benefits of developing skilled readers, and hence independent (engaged) readers, are worth the time, effort and expense. Such investigation should be undertaken after a semester or preferably a year's intervention, focussing on reading development.

Fluidity of classes (Mobility of students)

The fact that some students moved between class groups and some students did not attend all classes created a number of problems. Some students answered pre-intervention questionnaires and not post-intervention questionnaires, or vice versa, and therefore data could not be matched. In addition, data were lost due to students not providing student numbers. Future research should guard against this unnecessary loss of data by preventing students from changing groups, if possible, and by checking student numbers upon submission of questionnaires.

10.5 Significance of study

The thesis contributes to the debate on academic reading, especially on issues relating to the relationship between socio-affective factors and reading proficiency; self-efficacy as a strong predictor of reading ability; and the influence of social and cultural factors on affective levels, especially for *At Risk* students.

The finding that there is a robust relationship between socio-affective factors and students' reading proficiency or literacy levels (Chapter 5), confirms the growing body of literature that documents the association between socio-affective factors and reading proficiency (Grabe & Stoller 2002; Guthrie & Wigfield 2000; Pretorius 2000; 2007; 2008).

Another finding of the study, that self-efficacy is the strongest or best predictor of students' reading ability (Chapter 5), confirms previous studies that show self-efficacy best predicting reading proficiency (Erlich et al. 1993; Huang 2003; Mills et al. 2007).

Furthermore, the finding that social and cultural factors aligned with students' affective levels in reading (cf. § 5.) confirms the literature that these factors influence affective levels in reading (Alderson 2000; Grabe & Stoller 2002; Guthrie & Wigfield 2000; Taylor & Yu 2009).

Moreover, the research replicates and extends previous work by Guthrie and his colleagues. First, it replicates their work in that their successful implementation of motivational processes and cognitive strategies in reading instruction produced higher reading comprehension, reading strategy use and reading engagement (Wigfield et al. 2008). Second, their work is extended in the sense that, whereas it was undertaken with L1 students at elementary and middle school levels, the current study (which also integrates motivation and cognitive strategies) is undertaken in an L2 tertiary context.

On the pedagogical level, the finding that TALL reliably distinguishes between students with poor reading background, and therefore low reading ability, and those with rich reading background and higher reading ability (Chapter 5) further confirms its reliability as a diagnostic test for differentiating *High/At Risk* students who need intensive academic

literacy support and *Low/No Risk* students who merely need to enhance their academic literacy.

Finally, the thesis contributes to the field, pedagogically, through the main finding of the study, which is that reading instruction which integrates cognitive and motivational strategies yields higher affective levels for reading, leading to higher reading proficiency than a purely cognitive approach to reading instruction.

10.6 Recommendations

On the basis of the research, a number of recommendations are made: first, at the classroom level, in relation to teaching strategies, syllabus, and teaching materials; and second at the institutional level.

10.6.1 Classroom level

In relation to teaching strategies, this study has shown that merely teaching students cognitive strategies is not adequate, as their affective levels decrease with the progress of tertiary workload. Krashen's model for L2 learning, as explained by Brown (2000), posits that when the affective filter is high, language learning is low. Likewise, Burton (2011) in relation to Universal Design for Learning, explains that a strain on the affective decreases cognitive function. Students are more creative and conceptualise better if their affective levels are high. Thus, at tertiary level, a focus mainly on cognitive strategies for students who have not been involved in reading, and do not have the basic reading strategies and skills, as well as a love for reading (due to low SES or poor educational background (cf. § 1.2) is inadequate. First-year students need to be introduced and taught reading strategies in a fun, interesting and enjoyable manner in a non-stressful environment (affective approach) that will instil joy and love for reading, which will motivate them to want to read, enjoy reading and read frequently with understanding. In relation to the findings of the study a number of recommendations are made in relation to the South African context, where many students fall into the *High/At Risk* group and have low socio-affective levels in reading.

Commencement of literacy support

Students at tertiary level should be provided with literacy support from the start of their university studies. Since they face reading challenges at the beginning of their first year, it is suggested that the reading section of the Academic Literacy module for High/*At Risk* students should be included in the first study unit of the curriculum. This will equip them with appropriate strategies that they can apply to the reading of their textbooks. Failure to instil this competence in students at the beginning of their undergraduate year causes a number of them to struggle with tertiary level reading demands. They find the level and amount of reading required of them to be challenging and daunting, and might begin to read at frustration levels, thus lowering their affective levels (motivation, interest, attitude and self-efficacy). This, in turn, might leave them with a sense of hopelessness and failure that could result in some students leaving the university or even dropping out of the educational system.

Affective and cognitive development

In addition, instruction should be two-pronged and be aimed at improving reading ability and affective levels. TALL results show that the students' reading ability at tertiary level is low. As reading threshold depends on the level of texts and tasks (Grabe and Stoller 2002), it became evident that at the time that the research was done, the threshold for tertiary reading had not yet been reached by this cohort of students. The minimal improvement indicates that a number of students were reading at frustration levels at the beginning of their first-year. Frustration level reading lowers motivation and since research has shown that reading ability is linked to the affect; instruction needs to be aimed at increasing affective levels as well, in order to prevent motivation from decreasing. Improvement in the affective levels of students in the intervention classes shows that the affective approach does increase motivation to read, which confirms studies by Guthrie and his colleagues.

Furthermore, competence support develops self-efficacy, which was found to be the strongest predictor of reading ability. Students should therefore be given adequate competence support early in the year to increase self-efficacy and to prevent motivation from decreasing, as a result of frustration level reading.

Rewards and praise

Praise and rewards seem to be important to students, especially *High/At Risk* students. The researcher was pleasantly surprised at the positive responses that students provided for the praises and rewards. It turned out to have been one of the greatest motivating factors, according to the students' reports. Praise and rewards, with recognition should form part of literacy teaching programmes for *High/At Risk* students to instil motivation and promote effort.

Building of self-confidence, self-esteem and self-efficacy

A number of students reported feelings of insecurity and intimidation at the beginning of the year, especially in cases where lecturers were perceived to be unfriendly and unapproachable. Lecturers, especially of literacy modules, should therefore be approachable and strive to create a friendly atmosphere in class. Students should be given the necessary (teacher) support to build their self-confidence and self-esteem in order to develop appropriate self-efficacy levels. Students who have high self-efficacy tend to be high achievers (Guthrie et al. 1999; Huang & Chang 1998; Mills et al. 2007).

Teacher support and the learning environment

Students seem to link the learning environment with the level of support from the lecturer. For these students, effort and motivation were driven by the teacher's support and the kind of environment created in the classroom. They perceive a lecturer who provides adequate support in class as creating a conducive environment that makes learning easier and interesting. Little or no support in their view may create an environment that makes learning boring and more challenging. This is in line with the view that the teacher creates an environment, which can either suppress or enhance learning (Brown 2000; Cook 2001; Dörnyei 2001b; Dörnyei & Ushioda 2011; Wentzel 2005). Relating this specifically to L2 learners, Cook (2001:230) suggests that the teacher should free the L2 learner from inhibiting factors and that L2 learning successfully takes place if the learner's inner self is set free by providing the right circumstances for learning. This is confirmed by Burton (2011) in her advance for the Universal Design for Learning (UDL). She explains that UDL theory propounds that when the affective networks are relaxed, cognitive or strategic networks have a higher level of performance. Lecturers should endeavour to promote a non-threatening environment that provides affective and academic support in order to enhance learning,

When the students realised that they were being treated as individuals (sense of identity) and recognised (bonding) they were motivated to learn. When students realise that significant adults (e.g. teachers/lecturers and parents) believe in them (encouragement) and provide them with freedom in learning, they are motivated (Deci et al. 1991; Guthrie & Wigfield 2000). As Gardner and Barefoot (2011) explain, students' success may depend on the relationship that the lecturers build with them, or the support they give them. Huang and Chang (1998) found that teacher support improved students' confidence, made them put in more effort, and believe in their ability to succeed. They concluded from their study that the teacher played an important role in influencing the students' self-efficacy in reading, which was confirmed by the current study.

Socio-affective teaching approach
Students in the intervention groups were very positive about the socio-affective approach, citing its interactive nature among others. They reported that it enabled them to form friendships, which enhanced and promoted their learning. They also reported that the environment enabled them to interact and learn from their peers. The teaching approach for academic literacy modules should therefore be undertaken in an environment that enables students to interact freely and possibly form friendships. Gardner and Barefoot (2011) suggest that one of the ways to ensure first-year students' success is to help students to establish connections.

Other recommendations on teaching strategies in the classroom include:
- a pedagogical shift to learning and learner-centredness in the teaching of literacy modules;
- instruction of reading strategies, including inferencing, distinguishing between main and supporting ideas, summarising of texts, to mention a few;
- creating an interesting and motivating environment for students to learn,
- capitalising on students' background to enhance learning,
- using a socio-affective orientation to literacy instruction to allow for interaction, increase affective levels, and to promote learning.

In relation to the syllabus, extensive reading should be made part of a tertiary level reading programme to develop positive reading habits in students and to provide them with an

avenue to practise engaged reading. Students reported being involved, focused and interested while reading for pleasure. These abilities were transferred to their academic reading, which promoted better understanding, increased reading speed, and in turn enhanced their reading ability. Students should be given frequent exposure to print through extensive reading, as it is mainly through involvement and engagement that students' reading ability is developed and the use of strategies become automatic. Students develop their reading literacy skills and abilities through reading, especially reading for pleasure. However, a number of them could not participate in the extensive reading project due to unsatisfactory time management. Students explained that they were overwhelmed by their studies and did not have the time to participate. Students who could not participate in this exercise lost this valuable experience and opportunity to develop their reading ability through a more fun, exciting and effective approach. The 'Matthew effect' in reading (the poor get poorer) could be referred to in this context. Students who were finding it difficult to cope with workload due to their low reading proficiency, and therefore needed the practice to improve their reading proficiency, were the ones who lost the opportunity.

Regarding teaching materials, interesting and level-appropriate texts for extensive reading and relevant texts from students' disciplines or subject-fields for academic reading, should be utilised for the development of reading proficiency. The use of Blackboard learning to supplement teaching and promote interest and motivation is also strongly recommended.

Texts for teaching academic reading should be significant or relevant to students and should be at their level of competence. Extracts from textbooks, texts on discipline-related topics, and interesting generic texts on current issues should be used for teaching academic reading. Students reported finding the discipline-related texts relevant and therefore motivating. Whereas they found texts at their level of competence interesting, they reported finding very difficult texts boring, uninteresting, and demotivating.

10.6.2 Institutional level

Recommendations at the institutional level centre around the duration and level of Academic Literacy (AL) modules, the number of modules students should take in their first-year, timing of tests and assignment, and exemption of high performing students from AL modules.

First, an intervention or support module for first-year students should ideally span an entire academic year, and should be available to those who need it even at second and third year levels. Affective improvement highly influences cognitive outcomes in reading development, when an intervention is sustained. A seven-week or even a fourteen-week intervention may be inadequate in changing affective levels to significantly impact on cognitive reading levels (though this study did show improvement).

Second, the number of first semester modules should be reduced for first-year students (at least for *High/At Risk* students) to allow for greater attention to be given to the development of academic reading ability. The early development of reading literacy will assist them to achieve success in their academic subjects. In addition, time management support should be provided from the beginning of the year and continued throughout the year. This recommendation is based on the premise that students develop their reading literacy skills and ability through reading, especially reading for pleasure. However, a number of them could not participate in the extensive reading project due to inadequate time management.

Third, the timing of module and semester tests should be considered. Some students reported performing below their ability in tests written in the evenings due to fatigue and lack of concentration and focus. It is recommended that the timing of module and semester tests should be considered and if possible scheduled during the day.

Finally, it is recommended that students who achieve the top end of the TALL (i.e level 5) could be exempted from taking literacy support modules, so that those who need it can benefit. Alternatively, a more advanced discipline-specific academic literacy module should be made available to these students.

10.7 Conclusion

This thesis has confirmed findings of earlier studies that socio-affective factors in addition to cognitive factors have a significant effect on reading ability. The study also filled important gaps in the research literature by focusing on higher education instead of basic education, and on L2 speakers rather than L1 speakers. In particular, it addressed the institutional needs of the University of Pretoria during a time of complete restructuring of

the offerings of the Unit for Academic Literacy. The findings suggest that that reading instruction grounded in a socio-affective approach can be a more successful way of improving students' affective levels for reading than a purely cognitive approach. Thus in seeking to improve students' reading ability, not only should the cognitive be targeted, but also social and affective redress need to be pursued vigorously.