LITERARY RESPONSE AND ATTITUDE TOWARD READING FICTION IN SECONDARY EDUCATION: TRENDS AND PREDICTORS

ERIK VAN SCHOOTEN* & KEES DE GLOPPER**

**University of Amsterdam & **University of Groningen, the Netherlands*

Abstract The present article synthesizes the results of four studies that concern attitudes towards reading fiction and the literary response of students in secondary education. Both cross sectional and longitudinal data sets were created with the cross sectional data used for establishing 'model fit' of both the attitude model and the literary response model. Relations between different components of both models used are charted among reading behavior and relations between model components and student characteristics. The longitudinal data is used to establish trends in attitude and response. Also relations between student characteristics and characteristics of literary education lessons on the one hand and trends in attitude and literary response scores on the other are examined. Results indicate that both the attitude and the response instrument show adequate model fit. Of all attitude components, 'affect' appears to be the best predictor of reading behavior. Response factors appear to be structured in two secondary order factors: 'trance' and 'literary interpretation'. Attitude and response scores diminish with age. Literary education lessons appear to slow down the diminishing trends. The text experience method seems especially promising for stimulating literary response and attitude toward reading fiction.

French Cet article synthétise les résultats de quatre études. Celles-ci portent sur l'attitude à l'égard de la lecture littéraire et les *réponses* aux textes littéraires des lycéens. Des données à la fois transversales et

L1 – Educational Studies in Language and Literature (2006) 6 (1), p. 97-174

Correspondence to author: Erik van Schooten, SCO-Kohnstamm Institute of the University of Amsterdam, Wibautstraat 4, P.O. Box 94208, 1090 GE Amsterdam, The Netherlands, Email: E.J.vanSchooten@uva.nl

longitudinales ont été recueillies. Les données transversales ont permis de vérifier la validité des modèles de l'attitude et de la réponse littéraire utilisés. Les relations entre les différentes composantes des deux modèles ont été repérées, parmi lesquelles le comportement en lecture et le rapport entre les composantes des modèles et les caractéristiques des lycéens. Les données longitudinales ont été utilisées pour repérer des tendances dans l'attitude et la réponse. En outre, nous avons examiné les liens entre les caractéristiques des lycéens, ainsi que le contenu des cours de littérature, et les orientations qui se dégagent de leur attitude et de leur réponse. Les résultats confirment notamment la validité des instruments de recueil de l'attitude et de la réponse. De toutes les composantes de l'attitude, la dimension affective semble être le meilleur prédicteur du comportement de lecteur. Les facteurs liés à la réponse semblent se structurer autour de deux facteurs d'ordre secondaire : « l'extase » et « l'interprétation littéraire ». Les scores obtenus dans la mesure de l'attitude et de la réponse diminuent avec l'âge mais l'enseignement de la littérature semblent ralentir cette tendance, l'approche expérientielle du texte semble particulièrement prometteuse pour stimuler les réponses littéraires et l'attitude à l'égard de la lecture de fictions.

Chinese 本文综合了四个研究，这些研究有关中学教育对阅读小说的态度，及其语言反应。横断研究与纵贯研究的同时进行。横断研究所得的数据，用以测试态度模型和语言反应模型的适切性。两个模型中，不同元素之间的关系都被记录，它们的包括阅读行为和学生特征。纵贯研究所得的数据，用以建立态度和反应分数的趋势。此外，本文研究了学生特征与语文教育课堂特点之间的关系；以及态度和语文反应的趋势。研究结果指出，态度及反应的研究工具，它们的适切性都很高。在众多的态度元素之中，情意似乎是预测阅读行为的最佳元素。反应因素则似乎被规限在两个二阶因子（secondary order factors）之中：迷离状态和语言理解。态度及反应分数随着年纪渐长而下降，而语文教育课堂则可以减慢这个下降的趋势，尤其以文本经验法，能有效地刺激对小说阅读的语言反应及态度。

Dutch In dit artikel worden de resultaten gepresenteerd van twee cross-sectionele en twee longitudinale studies. De studies betreffen de attitude ten aanzien van het lezen van literatuur en de literaire respons bij leerlingen in het voortgezet onderwijs. In de cross-sectionele studies worden de theoretische modellen getoetst op basis waarvan het attitude- en het responsinstrument zijn geconstrueerd. Ook de relaties tussen de modelcomponenten onderling en modelcomponenten en studentkenmerken worden in kaart gebracht.
Met de longitudinale data wordt de ontwikkeling van de attitude- en responsscores geschetst. Ook wordt de samenhang bepaald tussen enerzijds studentkenmerken en kenmerken van de literatuurlessen en anderzijds de ontwikkeling van de attitude- en literaire responsscores.
De resultaten laten zien dat zowel het attitude- als het responsinstrument een goede modelfit vertonen. Van alle attitudecomponenten blijkt 'affect' de beste voorspeller van het leesgedrag te zijn. De responsfactoren blijken te groeperen in twee tweedeorde factoren: Trance and Literaire interpretatie. Over het algemeen nemen zowel het leesgedrag als de attitude- en de responsscores af naarmate de leerlingen ouder worden. Deze afname blijkt onder andere vertraagd te worden door meer literatuuronderwijs en het meest door leerlinggericht literatuuronderwijs dat uitgaat van de tekstervaring van de leerling.
Key words: Longitudinal research, reading attitude, literary response, reader response, reading behavior, structural equation modeling, literary education

1. INTRODUCTION

In 1993 the secretary of the Department of Welfare, National Health and Culture in the Netherlands prioritized the promotion of the book and a reading culture in government policy because of an observed decline in reading in the Netherlands (SCP, 1992) as well as the (established) relatively poor reading proficiency of many students in Dutch secondary education compared to students in other countries (Elley, 1992). Although trends in the drop of reading of Dutch students were shown to start in primary education, interest in leisure reading appeared to diminish rapidly especially during secondary education when interest in other leisure activities such as

sport or watching television increased (Koolstra, Van der Voort & Vooijs, 1992; SCP, 1992). Hence, actively promoting reading in the Netherlands had two explicit aims: to change the reading habits of students in primary and secondary education resulting in students reading more - and qualitatively better - books, and to stimulate a positive attitude toward leisure reading. Stimulating 'reading attitude' was assumed to result in more reading.

In an attempt to provide theoretical framework for promoting reading in the Netherlands and a basis for the evaluation of reading promotion projects, we initiated two lines of research. The first aimed at determining the relation between reading behavior and reading attitude. The second intended to measure readers' experiences while reading fiction – or their literary response. For both lines of research two data sets were constructed, one cross sectional and one longitudinal. The cross sectional sample was used to verify the fit of the measurement models of both an attitude questionnaire and a literary response questionnaire. This cross sectional sample also aimed at establishing interrelations between different factors in the models as well as relations between these factors and some student characteristics. The longitudinal data set was used to verify trends in attitude and literary response scores and to establish relationships between trends and background variables (see Figure 1).

Figure 1: Two lines of research, two data sets and the corresponding references.

	Cross sectional data set	Longitudinal data set
Attitude research	Van Schooten & De Glopper (2002)	Van Schooten, De Glopper & Stoel (2004)
Literary response research	Van Schooten, Oostdam & De Glopper (2001)	Van Schooten & De Glopper (2003)

In the following we first present theory concerning attitudes toward reading fiction and literary response theory.

2. ATTITUDE THEORY

The International Encyclopedia of Education (Keil, 1991) defines 'attitudes' as 'positive or negative feelings of an individual toward objects, persons or ideas'. Attitudes are thought to be learned and not innate responses and, although stable, attitudes can change and are thought to influence behavior.

Traditionally attitudes are thought to be composed of a cognitive, an affective and a conative or behavioral component. This taxonomy is older than the attitude concept and can be found in Hellenistic philosophy, and in the theories of Locke and Kant (McGuire, 1989). It is suggested this classification corresponds to human ways

of conceptualizing and reflects the development of the brain: the cortex, limbic system and old brain (Sagan, 1977). The cognitive component of attitudes includes the ideas or cognitions one has about the attitude object; the affective component reflects the feelings toward the attitude object and the conative component refers to the actual behavior concerning the attitude object.

In explaining how attitudes come into being, attitude theory distinguishes factors related to experience or socialization and maturation or cognitive development. Reinforcement and imitation are the most important concepts in theories regarding socialization. Skinner's (1953) theory concerns mainly reinforcement. Later Bandura and Walters (1963) added the concept of imitation with the argument that very young children already display a lot of attitudes, which can hardly be explained by reinforcement alone. The assumption is that young children imitate their parents, peers, persons they see in television programs, in school, etc. and that initial attitudes arise this way. When expressing initial attitudes to parents, tutors or educators these latter will confirm or resist these attitudes by what is called selective reinforcement (rewards or punishment). Subsequently, influenced by selective reinforcement, some of the attitudes will be internalized. In internalizing, two processes come into play: identification and classical conditioning.

Identification relates to the process in which a person adopts characteristics, for instance standards and values, of an admired or esteemed person. The concept of identification is broader than the concept of imitation. Imitation concerns specific behavior, identification a long lasting adoption of characteristics of the other person. Young children in general identify primarily with the mother. Conditioning arises by linking attitude statements to affection or appreciation. Only initially external affection or appreciation is necessary; later on this appreciation is internalized.

Empirical research suggests that the development of attitudes is plausibly influenced both by socialization and cognitive development. Research by Lambert and Klineberg (cited in Keil, 1991) indicates that attitudes towards foreigners have culture specific characteristics. French-Canadian and Japanese children become more hostile toward foreigners from their tenth to their fourteenth years. In the same time span, American children become less hostile toward foreigners. Furthermore, the ethnocentrism of Bantu and Brazilian children is much more extreme than that of American, Canadian, Japanese or French children. Since differences in ethnocentrism seem to be culture specific, these results point to the importance of socialization in the development of attitudes toward foreigners.

Research by Kohlberg and Zigler (1967) indicates that children's attitudes toward gender role patterns is influenced more by intelligence (as an operational definition of cognitive development) than by age (as an indication of the amount of socialization). Smart four year old children answer questions about gender role patterns in similar ways to children of seven years of age and of average intelligence, smart seven year olds answer like ten year old children of average intelligence. We may conclude that attitudes are probably influenced by both socialization and cognitive development.

2.1 How do attitudes influence behavior?

Attitudes are thought to influence behavior. Attitude research usually aims at predicting the behavior of individuals by means of their attitude. However, in a review by Wicker (1969) verbally expressed attitudes on average show a correlation of .20 with the predicted behavior. One explanation for this poor prediction is that habitual behavior is harder to predict from attitudes than initial behavior (Ronis, Yates & Kirscht, 1989). Initiating behavior implies conscious behavior, habits do not . When behavior becomes habitual, attitudes toward the behavior and the behavior itself might diverge (Dishman, 1982; Triandis, 1977, 1980).

To improve the prediction of behavior from attitudes, new variables are introduced in the attitude model. Furthermore Ajzen and Fishbein (1977) state that the level of specificity of the attitude measurement and the behavior to be predicted, should converge. To predict smoking behavior, attitude toward smoking is a better predictor than attitude toward a healthy life style. Finally, the relationship between behavior and attitudes is examined. Prediction of behavior by attitudes is better when the individual has more personal experiences with the attitude object and when the attitude is expressed and discussed more often by the individual (Fazio, 1989).

As mentioned, new variables have been added to the attitude model to improve prediction of behavior. Ajzen and Fishbein (1980) first introduced the 'Causal chain model', in which a new construct 'behavioral intentions' is added and in which causal relations are hypothesized between **'**cognitions' and 'affect', between affect and 'intentions' and between intentions and 'behavior'.

Subsequently the Causal chain model was adapted to the 'Model of planned behavior' (MPB, see Figure 2).

Figure 2: Model of planned behavior (in bold the causal chain model).

Behavioral beliefs (cognitions) & outcome evaluations	**Affect**		
Normative beliefs & motivation to comply	Subjective norm	**Intentions**	**Behavior**
Control beliefs & perceived facilitation	Perceived behavioral control		

In this model behavioral intentions are determined not only by cognitions and affective attitude, but also by 'subjective norm' and 'perceived behavioral control'. The subjective norms of a person are brought about by the norms of persons around the individual (normative beliefs) and the individual's motivation to comply with these norms (e.g. socialization). Perceived behavioral control is the extent to which one thinks one is able to perform the behavior under consideration. According to the MPB perceived behavioral control is caused by control beliefs or possibilities one sees for realizing the behavior under consideration, and the perceived facilitation or degree which one thinks one is able to personally realize the aforementioned possi-

bilities. Perceived behavioral control is thought not only to influence intentions, but also to directly influence behavior. The reason for this is that in some cases one might truly intend to perform behavior (e.g. stop smoking) whilst perceiving a low behavioral control, thus creating an effect of perceived behavioral control on actual behavior. By now there is ample empirical support for the MPB (Ajzen & Fishbein, 1980; Ajzen, Timko & White, 1982; Bentler & Speckart, 1979, 1981; Fredericks & Dossett, 1983) and the model is frequently used in social psychology research (Van den Putte & Hoogstraten, 1997; Van der Pligt & De Vries, 1998; Norwich & Duncan, 1990; Norwich & Rovoli, 1993; Simonson & Maushak, 1996).

2.2 Reading attitude and reading promotion revisited

The theory described earlier shows that next to reading behavior and affective reading attitude, other aspects of the MPB could be important indicators of the success of reading promotion activities and might offer insights into the reasons for the success or failure of such activities. If the MPB is right, behavior is the hardest to influence since changing behavior implies changing other aspects of the MPB first.
In addition, we learned that habitual behavior is hard to change even if attitude *does* change. Furthermore, we conclude that prediction of behavior from attitudes will be better when the individuals concerned have thought more about the attitude and when the level of specificity of attitude and behavior correspond.

To gear the level of specificity of attitude and behavior, we must ascertain what we want to change in reading promotion activities. The three goals of the Dutch reading promotion at the student level are that students read more, enjoy reading more and will read 'better' books. Stimulating reading of better books, in fact, implies stimulating the attitude toward reading better books, therefore the attitude instrument for this study should aim at measuring the attitude toward reading qualitatively better works of fiction.

3. LITERARY RESPONSE THEORY

The aim for reading better books implies aiming at a different reading process. We do not only want students to read better books, but also to understand these books, and to understand what makes these books better. This implies stimulating a more complex, sophisticated reading of literary fiction. If we want to evaluate reading promotion, and gain an understanding of the factors determining the level of sophistication of the literary reading process, we will have to measure the relevant characteristics of this process.

Since the beginning of the 20th century, research into literary reading has changed from a writer-based approach to a text-based approach (Wellek & Warren, 1949) and subsequently to a reader based approach (Fish, 1970; Iser, 1978; Mailloux, 1984). Reader response theories (Britton, 1984; Harste, 1985; Rosenblatt, 1978, 1995b) highlighted the transaction or interaction between reader and text (Hunt & Vipond, 1985; Bleich, 1986a; Hakemulder, 1997).

Changes in the focus of research into literary reading have been accompanied by developments in research methods. Traditional hermeneutic research methods have been supplemented with empirical methods, grounded in scientific areas like cognitive psychology and sociology (e.g. Schmidt, 1997; Sadoski & Quast, 1990; Goetz, Sadoski, Stobe, Fetsco & Kemp, 1993; Knulst & Kraaykamp, 1996, 1998).

Parallel developments can be seen in literary education. Traditionally, the teaching of literature in the Netherlands was directed toward the historic-biographical and supplemented by a focus on text analysis (e.g. structural analysis). Recently, literary education has become more concerned with the experiences of students while reading literature (Beach, 1993). This shift of focus toward the response of the reader while reading literature is reflected in educational objectives. A modern goal of literary education is to enhance the students' reading behavior and attitudes toward reading literature (cf. DeKay, 1996; Janssen, 1998; Van Schooten, 1994; Vriend, 1996).

While some literary theorists and researchers dispute the need for a separate study of the reading of literature and prefer to combine the study of the reading of literary texts within a general theory of the reading of texts or discourse analysis (e.g. Van Dijk, 1979), recent research shows that the reading process for reading literature or fiction has specific characteristics, not necessarily present in the efferent reading process (Hoorn, 1997; Miall, 1995; Miall & Kuiken, 1994, 1995a, 1998; Zwaan, 1991). Consequently, the call has gone out in favor of empirical literary research that deals with the reader, the transaction between reader and text or the reader's response (e.g. Van Peer, 1996; Rosenblatt, 1995a; Schmidt, 1997). This kind of study remains relatively rare, especially studies of 'ordinary readers' rather than the response of specialist scholars such as literary critics (Miall & Kuiken, 1998).

4. INSTRUMENTS

As stated in the introduction, we aimed at operational definitions of the goals of reading promotion in the Netherlands. The constructs to be measured are: attitude toward reading better fictional books and the characteristics of the process of reading fiction, or the literary response.

4.1 Attitude instrument

For the attitude research an instrument was constructed based on the MPB. Items were formulated for five different aspects of the MPB: cognition, affect, intentions, subjective norm and perceived behavioral control (see Figure 2).

Participants indicated on Likert scales (1 = totally untrue; 5 = completely true) to what extent items applied to them. Furthermore, students kept a daily log for five weeks of the time spent reading adolescent literature in their spare time the preceding day (i.e. not as school work; see questionnaires in Appendix). In all questionnaires students were given a detailed definition of the term 'adolescent literature' as

used in this study. In addition, many examples were given of books covered by our concept of 'adolescent literature'. These could be works like 'Alice in Wonderland' or 'Lord of the Rings', but also literary works of fiction aimed at adults.

Examples of items in the attitude questionnaire include: 'Reading works of literature gives you a better understanding of people that are different from you' (cognition); 'I enjoy reading literary works' (affect), 'Reading literary works is a waste of time, you had better do something useful' (subjective norm), 'I think many works of literature are difficult to understand, often I do not completely understand the story' (perceived behavioral control), and 'In my spare time I am not going to read a literary work' (intention) (see Table A4 in Appendix for attitude items).

4.2 Literary response questionnaire

Empirical research on literary response presupposes the availability of reliable and valid measures (Goetz & Sadoski, 1996). Studies of reader response based on the analysis of thinking-aloud protocols indicate that most readers are self-aware of their reading activities and more or less able to provide valid descriptions of their experiences (cf. Kintgen, 1983; Dias & Hayhoe, 1987; Hansson, 1990; Smith, 1991). Miall and Kuiken (1995b) used this result as a starting point and conjectured that if readers are capable of validly reporting their reading activities, they might also be able to validly report their reading response. Miall and Kuiken developed a Literary Response Questionnaire (LRQ) for measuring different aspects of literary response. The LRQ was used for measuring literary response in the studies presented in this article.

Literary response as measured by the LRQ can be defined as a more or less stable trait reflecting the mental reactions of an individual while reading fictional texts, independent of the specific text being read and the specific reading circumstances at hand (Miall & Kuiken, 1995b). This definition is restricted to reading with a predominantly aesthetic stance (Rosenblatt, 1995b). Conceiving literary response as an individual trait is supported by Purves (1981) who found that secondary students responded similarly across five different stories. Bunbury (1985) concluded that primary students respond consistently to literature, regardless of differences in genre.

The LRQ is directed at an individual inclination to certain ways of responding to fictional texts in general. For instance, someone with high scores on questionnaire items that deal with empathy is thought to be more inclined to projective identification with fictional characters than someone with low scores, independent of the literary text being read. Obviously, the individual literary response may vary depending on the fictional text being read (cf. Golden & Guthrie, 1986; Svensson, 1985; Zaharias, 1986). Likewise, the amount of empathy while reading can be influenced by the specific text or reading circumstances. Conversely, one can easily imagine that readers' preferences for certain texts may be influenced by their literary response.

The LRQ contains statements concerning literary response taken from questionnaires such as Purves' for measuring 'Interest' and 'Transfer' (1973). Each state-

ment uses a Likert scale running from 1 (totally disagree) to 5 (totally agree). Miall and Kuiken (1995b) administered the LRQ to 793 students of English and Psychology at the University of Alberta. Data analyses show that the items represent seven different aspects of literary response: 'leisure escape', indicating a response to reading that emphasizes reading for pleasure as an enjoyable and absorbing departure from everyday responsibilities (e.g., Nell, 1988); 'story-driven reading' which is associated with readers who are focused on plot or story line, with particular emphasis on interesting action and compelling conclusions (e.g., Hunt & Vipond, 1985); 'insight', referring to reading in which the literary text guides recognition of previously unrecognized qualities (e.g., Gold, 1990), 'empathy', indicating a tendency to identify with fictional characters, 'concern with author', reflecting interest in the author's distinctive perspective, themes, and style, as well as the author's biographical place in a literary or intellectual tradition (e.g., Hirsch, 1967), 'imagery vividness', expressing imaginary elaboration of a literary world that becomes perceptually vivid, and finally 'rejecting literary values', which represents the rejection of careful reading, of scholarly study and of instructional presentation of literary texts.

In Miall and Kuiken's (1995b) model two second-order factors, 'experiencing' and 'literal comprehension', were derived from the first-order factors. On the experiencing factor high positive values were found for leisure escape, insight, empathy, concern with author and imagery vividness. For literal comprehension a high negative factor loading was found for concern with author and high positive factor loadings occurred for 'story-driven reading' and rejecting literary values. The experiencing factor concerns the sophistication of the literary reading process, the literal comprehension factor indicates the degree to which readers do not like 'literary reading' and value story line and plot. Miall and Kuiken (1995b) also investigated the validity of the LRQ and concluded the instrument to be valid.

Examples of questionnaire statements are: 'Reading literature is a pleasurable way to spend time when I have nothing else to do' (leisure escape), 'When reading a novel, what I most want to know is how the story turns out' (story-driven reading), 'I find that certain literary works help me to understand my more negative feelings' (insight), 'Sometimes I feel like I've almost "become" a character I've read about in fiction' (empathy), 'When I find a work of literature I like, I usually try to find out something about the author' (concern with author), 'I can readily visualize the persons and places described in a novel or short story' (imagery vividness) and 'Even if literature were well taught, I think high schools should not devote so much time to it' (rejecting literary values). (See Table A19 in Appendix for questionnaire items.)

5. CROSS SECTIONAL DATA SET: VALIDATION OF THE INSTRUMENTS

To validate the attitude instrument and the LRQ, the questionnaires were administered to a cross sectional sample of students in grades 7, 8 and 9 (age 13-15) of all four streams in Dutch secondary education. We drew a stratified random sample of 116 schools from the total population of all junior vocational, lower general, higher general and academic schools in the Netherlands. One teacher of Dutch per school

was requested to provide the names of 15 students willing to participate in the study. We asked teachers to select not more than 5 students per grade, to minimize the effects of intraclass correlation (Hays, 1981). Teachers were asked to select the students at random from all students willing to participate. It was also explicitly stated not to select students on their competence. This way we obtained 603 student names from 43 teachers (38%). Of these 603 students, 467 filled out the attitude questionnaire (77%) and 496 filled out the LRQ (82%).

As an indication of the validity of the instruments, the fit of the measurement models was established by means of covariance structure analysis (Muthèn & Muthèn, 1998). As recommended by MacCallum, Browne and Sugawara (1996), we consider an upper bound of the 90% confidence interval of the root mean square error of approximation (rmsea) less than .05 as indicative of close fit and a value between .05 and .08 as indicative of fair fit. Values in the range of .08 to .10 indicate mediocre fit and values above .10 poor fit.

5.1 Fit of the MPB

The attitude model shows a fair fit (N = 467, $\chi 2$ = 1730.746, df = 689, p< .001, rmsea = .057). All items except one have statistically significant factor loadings on the factor they are supposed to measure. The conclusion is that the attitude instrument is valid for measuring the attitude towards reading adolescent literature of Dutch students in grades 7 to 9 of secondary education.

Next to establishing the fit of the measurement model, the path model of the attitude instrument was also computed (see Figure 3). Of all attitude components distinguished in the MPB the strongest predictors of the actual reading of adolescent literature appear to be cognition, affect and intentions. Subjective norm and perceived behavioral control are hardly connected with the actual reading of adolescent literature of students in grades 7 to 9 of Dutch secondary education[1].

In Table 1 mean attitude and reading behavior scores are presented. All means differ significantly from the neutral value of three, except for affect (t-tests, p = .05). These results imply that on average students think reading literature is useful (cognition), they have the opportunity to read (control) and intend to read in the near future (intention). They do not think they should read however (norm) and do not like or dislike reading literature (affect).

---

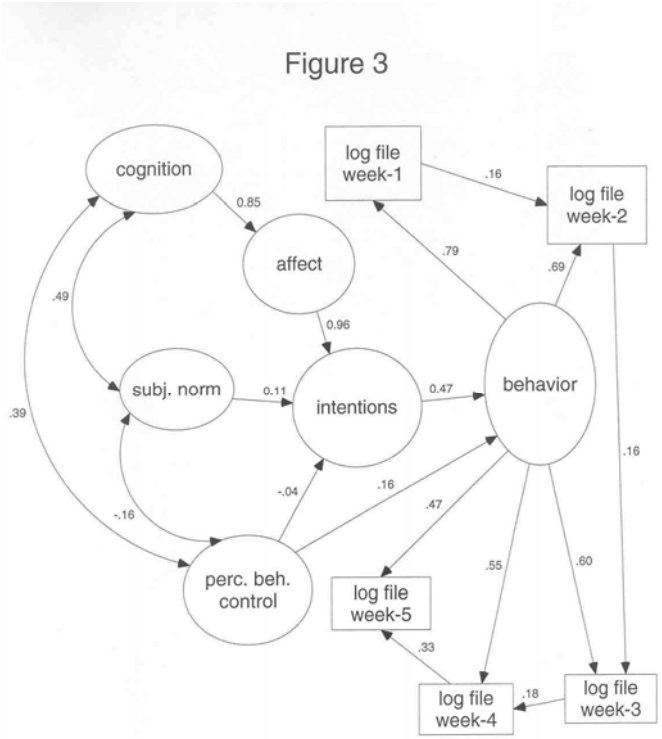
[1] *Since the prediction of intentions from affect is almost perfect, a model with affect and intentions combined into one latent variable was fitted. This alternative model however fits significantly worse than the model presented in Figure 3. The difference in* χ^2 *is 744.106 and the difference in df is 164 (p<.001).*

Table 1: Mean attitude scores on original scale (1 = very negative; 3 = neutral; 5 = very positive) and mean reading score in minutes per week (averaged over 5 weeks). Sample size is 467. Standard deviations are given between brackets, ni = number of items, α = Cronbach's alpha

Attitude and reading behavior scores					
Cognition	Affect	Norm	Control	Intention	Behavior
3.47 (.64) ni = 6 α = .71	3.04 (.79) ni = 9 α = .85	2.45 (.63) ni = 7 α = .70	3.81 (.61) ni = 6 α = .57	3.13 (.86) ni = 6 α = .80	84.37 (105.71) ni = 5 α = .88

Conclusions at this stage of the research are that, assuming the causal relations as presented in the MBP are valid, the best way to promote the reading of students in grades 7 to 9 of all streams of secondary education (vocational, lower general, higher general and pre-academic) is to influence cognitions about, and affect toward, reading adolescent literature. If the model is correct, the intention to read and the reading behavior will follow automatically. According to this study, the way to make students read more fiction is to have students experience that reading fiction can be enjoyable. Influencing the subjective norm, for instance by presenting role models who promote reading literature, or influencing perceived behavioral control, for instance by providing free books or reduced membership fees for libraries, seems less efficient. We concluded that students should not be forced to read (or finish) books they did not like. Instead, we suggested teachers should use their knowledge of the available (adolescent) literature in helping students select works of fiction they enjoy reading.

Figure 3: Path model of the MPB (standardized factor loadings and correlations).



5.2 Fit of the LRQ model

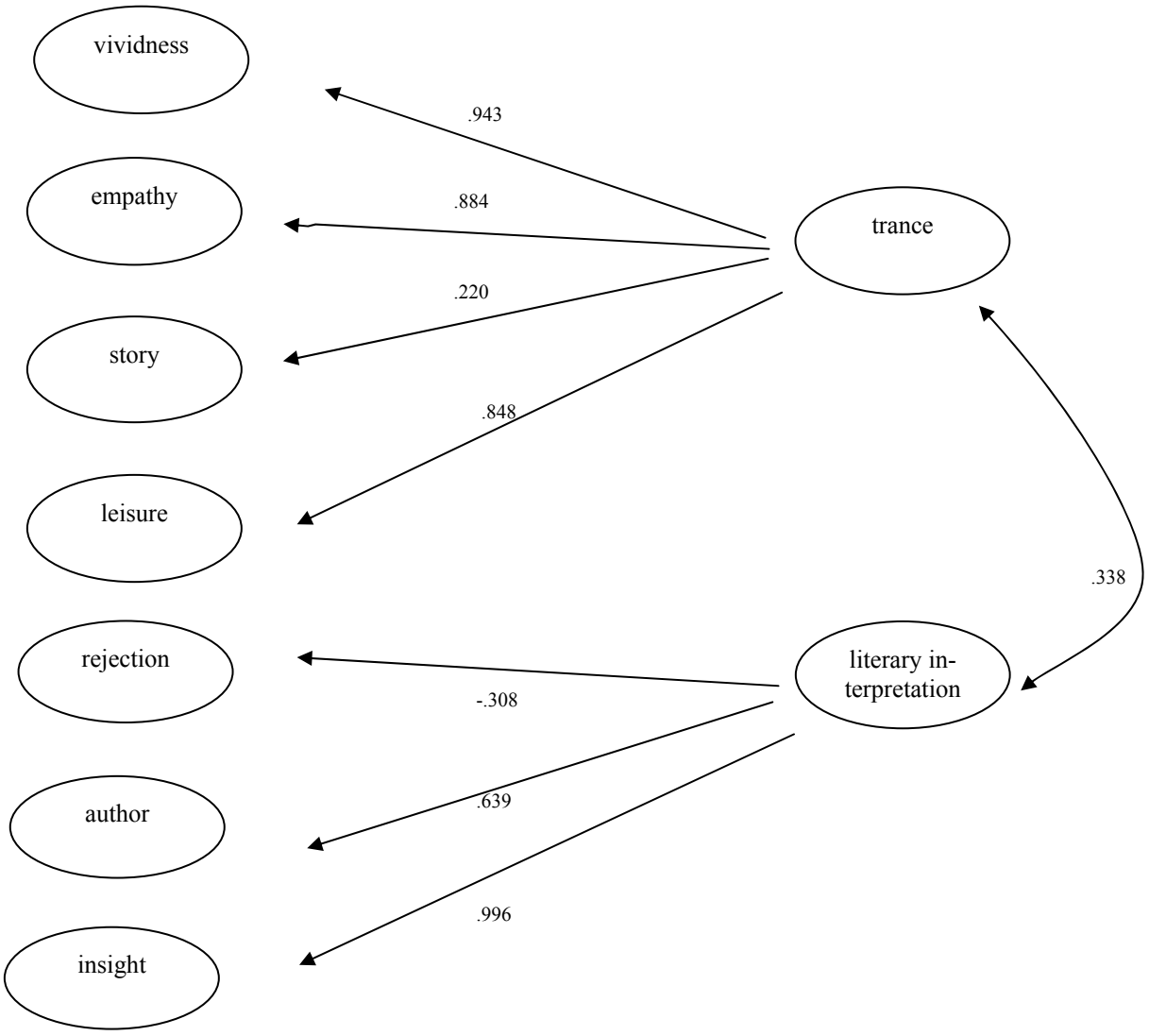
The first LRQ model tested contains seven first- and two second-order factors as described in Miall and Kuiken (1995b), and shows a close fit (N = 496, $\chi 2$ = 45-54.408, df = 2201, p< .001, rmsea = .046). The literal comprehension factor however was not identified: all factor loadings of first order factors on the second order factor literal comprehension were non-significant.

Apart from lack of identification, the second order factors as proposed by Miall and Kuiken (1995b) generate another problem. Since concern with author is thought to have (opposite) loadings on both second order factors, both factors become conceptually and statistically dependent. A new model was fitted with the same first-order factors as Miall and Kuiken's model, but with two different second order factors. In this model each first order factor has a loading on only one second-order factor. On the first second order factor, loadings were allocated for leisure escape, empathy, story driven reading and imagery vividness. This 'trance factor' (e.g., Nell,

1988) indicates the degree to which a reader is captivated by the fictional work. The next second order factor, 'literary interpretation', has loadings of rejection of literary values and concern with author and insight and represents the extent to which one likes to reflect on what is read (see Figure 4). This new model shows a close fit (N = 496, $\chi 2 = 4472.647$, df = 2202, p< .001, rmsea = .046) with significant factor loadings of all items on first order factors and of all first order factors on second order factors. These results confirm the validity of the LRQ for students in grade 7 to 9 of Dutch secondary education.

Inspecting the regression weights of first order factors on second order factors in Table 2, we see that trance is mainly determined by leisure escape, empathy and vividness. Literary interpretation shows the highest regression weight with insight. Considering the relatively low regression weights of both story and rejecting on their respective second order factors, we may conclude these response factors do not really fit the model very well. For rejecting this may be caused by the nature of the items used. The items refer partly to an attitude towards literary education instead of to a form of response.

Figure 4: Path model of the LRQ: (standardized factor loadings and correlation)



The appearance of the two second order factors shows that literary interpretation and reading to obtain a trance state are not opposite, but complementary responses. One might say that a 'complete' experience of a literary work encompasses both trance and interpretation and one could argue that literary education should take account of both of these aspects of literary response. This is all the more so since we found that readers who read to obtain a trance state while reading are not necessarily the same readers who like to interpret what they read. In the cross sectional data the correlation between both second order factors is .34.

Table 2: Measurement model LRQ and means and standard deviations on original scale (1 = very negative; 3 = neutral; 5 = very positive). Unstandardized and standardized factor loadings of the first order factors on the second order factors (N = 496). Standard errors and z-scores of unstandardized loadings between brackets.

First & second order factors	Means (sd)	Unstandardized Trance	Unstandardized Literary Interpretation	Standardized Trance	Standardized Literary Interpretation
Leisure escape	3.53 (.76)	.59 (.05/12.66)		.848	
Story driven reading	3.73 (.56)	.24 (.05/4.42)		.220	
Insight	2.91 (.62)		.63 (.07/9.09)		.996
Empathy	3.16 (.80)	.77 (.05/14.75)		.884	
Concern with author	2.60 (.65)		.38 (.05/7.50)		.639
Imagery vividness	3.54 (.74)	.62 (.05/13.13)		.943	
Rejecting literary values	2.80 (.54)		-.12 (.03/ -4.19)		-.308
Trance	3.49 (.58)				
Literary interpretation	2.90 (.45)				

6. THE CROSS SECTIONAL DATA SET: RELATIONS BETWEEN VARIABLES

6.1 MPB

After establishing the fit of the attitude model, we were interested to see whether the aforementioned declining interest in leisure reading with age could be demonstrated for students in secondary education. This means students in higher grades can be expected to read less and have a less favorable attitude toward reading adolescent literature than students in lower grades. In addition McKenna, Kear and Ellsworth (1995) and also Mitchell and Ley (1996) report that students with a higher reading proficiency show a more favorable attitude toward recreational reading. We may therefore expect students in lower levels of education to read less and have a less

favorable attitude than students in higher levels of education. McKenna, Kear and Ellsworth (1995) also report that the decline is stronger for students with a low reading proficiency (cf. the Matthew effect) and so we also expected a significant interaction effect of grade and level of education on reading attitude and reading behavior.

Besides age and ability, a relation between reading behavior and students' gender has been reported (Hendon & Hendon, 1991). Compared to males, females read more fiction. Also, McKenna and Kear (1990) report that in primary education, girls have a more positive attitude toward recreational reading than boys. Likewise Mitchell and Ley (1996) report a more positive reading attitude for girls in grades 9 to 12. However, in a study of Ley, Schaer and Dismukes (1994) no difference in reading attitude related to gender was found for students in grades 6, 7 and 8. We therefore examined relations between grade, level of education and gender on the one hand and the aspects of the MPB on the other by means of a multivariate analysis of variance. The dependent variables were the five different attitude scores and the average time spent reading adolescent literature during five weeks. The independent variables were grade (7, 8 and 9), level of education (junior vocational, lower general, higher general and pre-academic) and gender.

The overall effect of grade on the dependent variables was significant (Wilk's Lambda = .926; df = 12/918; F = 3.01; p = .000). Post hoc analyses showed significant effects for affect (F = 4.55; df = 2/464; p = .011), norm (F = 6.16; df = 2/464; p = .002), intentions (F = 3.92; df = 2/464; p = .021), and amount of reading (F = 3.07; df = 2/464; p = .047). As expected, these variables have higher scores in lower grades. Cognition and control are not significantly predicted by grade.

Next, the overall effect of level of education was significant (Wilk's Lambda = .814; F = 5.15; df = 18/1230,851; p = .000). Each of the dependent variables is significantly predicted by level of education; cognition (F = 18.61; df = 3/440; p = .000), affect (F = 11.03; df = 3/440; p = .000), norm (F = 5.76; df = 3/440; p = .001), control (F = 5.99; df = 3/440; p = .001), intentions (F = 16.04; df = 3/440; p = .000), and the amount of reading (F = 8.97; df = 3/440; p = .000). As expected, for all variables scores are higher in higher levels of education. For all attitude scores, differences are evenly spread over different levels of education, but for 'amount of reading' a marked difference can be noticed. The average amount of reading adolescent literature per week is 34 minutes for junior vocational education students, 107 minutes for lower general education students, 103 minutes for higher general education students and 93 minutes for students of pre-academic education. Contrary to expectations we did not find an interaction effect between grade and level of education.

Also the overall effect of gender on the attitude scores and the amount of reading was significant (Wilk's Lambda = .902; F = 8.29; df = 6/460; p = .000). Examination of the univariate F-tests per dependent variable shows that girls have a significantly higher score for cognition (F = 14.21; df = 1/465; p = .000), affect (F = 44.74; df = 1/465; p = .000), norm (F = 12.38; df = 1/465; p = .000), and intentions (F = 32.08; df = 1/465; p = .000), and read significantly more than boys (F = 15.33; df =

1/465; p = .000). On average the girls in the sample read adolescent literature 100 minutes a week and the boys 57 minutes (see Table A1 in Appendix).

6.2 LRQ

We examined the relationship between student characteristics and literary response. Students in secondary education show a declining interest in reading with age (cf. Otter & Schoonen, 1995; Van Schooten & Oostdam, 1998; Stange & Carter, 1995). Such a declining interest could be reflected in the literary response as well. Therefore we expected students' literary response to be lower in higher grades. Furthermore, it is known that literary response can be influenced by verbal intelligence (Hynds, 1985 & 1990; Scarlett, Press & Crocket, 1971). We therefore expected students in lower levels of education to have lower literary response scores than students in higher levels of education. Furthermore, students' gender is found to be related to reading behavior (Hendon & Hendon, 1991), to response orientations (cf. Crawford & Chaffin, 1986), to the distance to fictional work (cf. Bleich, 1986b; Flynn, 1986) and to the formality of the response (cf. Hansen, 1986). To be precise, compared to males, females read more fiction and watch more television, show a more emotional and more empathic response, and are more focused on issues or messages in the text. Also, relations between literary response and behavior have been reported. Readers of fiction appear more interested in 'fine' arts and non-readers and heavy television viewers prefer more popular forms of culture (Hendon & Hendon, 1991).

Important home background variables are social economic status (SES) and cultural level of the home environment. Svensson (1985), Black and Seifert (1985) and Heath (1985) suppose that the cultural socialization of readers influences their literary response. Parent-child interactions foster pre-schoolers' inferences about literature and the child's literary response profile matches that of the parents (cf. Martinez, 1983). Furthermore, higher SES corresponds with a more abstract level of literary response (cf. Barnes, Barnes & Clarke, 1984; Purves, 1986) and high-SES females show a higher academic achievement in literature and more concern with thematic meaning (Purves, 1981). In the cross sectional study, we verified the above-mentioned relationships.

In a multivariate analysis of variance the overall effect of grade on literary response is significant (Wilk's Lambda = .913; F = 3.23; df = 14/968; p = .000). If we examine the univariate F-tests for each of the dependent variables, students in lower grades have higher response scores on leisure (F = 4.07; df = 2/490; p = .018), empathy (F = 4.92; df = 2/490; p = .008), author (F = 16,09; df = 2/490; p = .000), trance (F = 3.39; df = 2/490; p = .035) and literary interpretation (F = 10.71; df = 2/490; p = .000).

The overall effect of level of education is also significant (Wilk's Lambda = .754; F = 6.50; df = 21/1318.550; p = .000). Students in higher levels of education have higher scores on trance (F = 18.96; df = 3/465; p = .000) and all first order factors related to trance (F-leisure = 17.41; df = 3/465; p = .000; F-story = 9.88; df = 3/465;

p = .000; F-empathy = 5.25; df = 3/465; p = .001; F-vividness = 19.80; df = 3/465; p = .000).

The overall effect of gender is significant too (Wilk's Lambda = .877; F = 9.70; df = 7/485; p = .000). Girls show a more favorable response on all first and second order factors except story and author (F-leisure = 56.58; df = 1/491; p = .000: F-insight = 27,65; df = 1/491; p = .000: F-empathy = 19,169; df = 1/491; p = .000; F-vividness = 21,011; df = 1/491; p = .000: F-rejection = 14,876; df = 1/491; p = .000: F-trance = 34.488; df = 1/491; p = .000: and F-literary interpretation = 23.390; df = 1/491; p = .000) (see Table A2 in appendix).

Also, a more positive response coincides with a larger vocabulary size (as an indication of verbal intelligence), a higher frequency of, and more time spent, reading, less time watching television, a higher frequency of making music, a higher parental level of education and a culturally more sophisticated home environment (see Table A3-1 and A3-2 in Appendix). It is clear that the expectations we formulated based on results from other studies proved to be true.

7. THE LONGITUDINAL DATA SET

In the cross sectional study, scores for attitude and literary response are lower in the higher grades. This could mean that scores diminish as students get older or that new generations show higher scores than older ones. In the longitudinal study, we inquired whether attitude and response scores diminish with age. In the cross sectional study, relations between attitude and response scores on the one hand and student characteristics on the other, were charted. In the longitudinal study we wanted to verify relations between *changes* in attitude or response and relevant background variables. If the decrease in attitude and response scores with age is confirmed, variables related to the changes in scores might provide insights into how to counter the negative trends. Of course, the most promising variables are the malleable school variables.

Table 3: Sample sizes (N), measurement moments, grades and cohorts.

	Moment of measurement		
	First	Second	Third
Cohort 1			
Grade	7	8	9
N-LRQ	330	186	123
N-Att	331	187	128
N-Reading behavior	321	199	111
Cohort 2			
Grade	9	10	11
N-LRQ	356	206	106
N-Att	360	207	106
N-Reading behavior	342	228	117

* Students staying down a grade are included in most analyses but not in Table 1 for reasons of clarity.

For the longitudinal study, a random sample of 65 schools for the two highest streams of secondary education (higher general and pre-academic) was drawn, of which 35% participated. School managers were asked to give the names of at most 40 students in grades 7 and 9 of the higher general and pre-academic streams, equally divided between grades and sampled randomly. This way we obtained 844 student names. At the first measurement moment, 696 students (82%) filled out the attitude questionnaire and 687 (81%) filled out the LRQ. Both instruments were administered in three subsequent school years (see Table 3). Since we started with students in grades 7 and 9, two cohorts can be distinguished.

7.1 Attitude in the longitudinal data set

The measurement model of the MPB again shows a good fit. Three times a two-group model was fitted, one for each moment of measurement[2] (1st moment N = 336/362, χ^2 = 6687.296, df = 2677, p = .0000, rmsea = .066: 2nd moment N = 223/245, χ^2 = 5618.212, df = 2677, p = .0000, rmsea = .069: 3rd moment N = 220/244, χ^2 = 5390.274, df = 2677, p = .0000, rmsea = .066). The upper boundaries of the 90% confidence intervals of rmsea are respectively .067, .071 and .069. All item factor loadings in all three analyses are significant at p = .001 (see Table A4 in Appendix).

Next a longitudinal two-group model was fitted using sums of the items for all attitude constructs measured. First, we tested the hypothesis that the structure of the model does not change with age. A model assuming equal parameters at each moment of measurement shows a fair fit (N = 336/361, χ^2 = 784.475, df = 305, p = .0000, rmsea = .067). However, a model allowing different parameters at each moment of measurement shows a significantly better fit ($\Delta\chi^2$ = 177.345, Δdf = 62, p<.001). This means that the relations between different aspects of the MPB change with age.

From interpreting regression weights of the model (see Table A5 in Appendix) we see that the prediction of actual behavior from each of intentions, affect and cognitions is much weaker than in the cross sectional study among students in grade 7 to 9 of all four streams of secondary education. Next, the effect of subjective norm on intentions is much larger than in the previous study. What is similar is that the

---

[2] *We assumed data to be 'missing at random' and could therefore use the Full Information Maximum Likelihood procedure (see Muthén, Kaplan & Hollis, 1987) as implemented in Mplus, in which all cases are included in the analysis. We do not assume data to be 'missing completely at random' which would imply that there is no selective mortality. 'Missing at random' means that missing data can be estimated from other, non-missing, data in the file. In a simulation study by Enders and Bandalos (2001), the Full Information Maximum Likelihood procedure gave better estimates than naive methods, such as pairwise or listwise deletion. In brief, the procedure sorts the observations into missing data patterns, each pattern is consequently automatically analyzed in a multiple group design with the appropriate constraints across groups. Thus the same model is estimated for all groups, and subjects with missing data are not removed from the analysis, unless they miss all data in the model.*

largest regression weights are found for cognition on affect and for affect on intentions.

Two ad hoc explanations seem plausible. Smaller regression weights may be caused by smaller variances of variables and by differences between the two populations under study. In the longitudinal study, variances of variables are smaller than in the cross sectional study because students from the two lowest streams of secondary education are not included and because regression weights were computed separately per grade in the longitudinal study. Also differences between the two populations might cause differences in the findings. Students in the lowest stream of secondary education read much less than those in other streams and also dislike reading more than students in higher streams.

As stated above, relations between aspects of the MPB change with age. The regression weights of cognition on affect remain constant when students grow older, but the effect of affect on intentions becomes stronger with age (see Table A5 in Appendix). Again it appears students read fiction when they like to and all the more so when they grow older. And the more students think reading fiction is useful, the more they like it. What is new compared to the cross sectional data, is that students also intend to read more fiction if they think they ought to. This effect however becomes weaker when students grow older. So probably students in higher general and pre-academic secondary education, especially younger ones, are more sensitive towards their subjective norms than students in the two lowest streams of secondary education. Another difference with the cross sectional study is that control now appears to have an effect on actual behavior, especially in grades 10 and 11. Increasing workload for school or jobs is one ad hoc explanation, but of course many other explanations can be thought of.

Next, we analyzed trends in mean scores. To do this, the comparability of the means of both grades 9 (of cohort 1 and 2 respectively) was checked. When only data is included from the respondents that filled out the attitude instrument at all three measurement moments, no significant differences between both grades 9 are found. For these analyses we therefore only used the data of respondents who filled out the attitude questionnaire all three times.

We find all aspects of the MPB diminish significantly with age (see Table A6 in Appendix). Furthermore, we find that, on average (see Table A7 in Appendix), for all aspects of the MPB except cognition, students show a positive stance. Mean scores diminish with age, but remain positive, meaning that on average students in all grades like to read, think they should read, find enough opportunity to read and intend to read in the near future. Nevertheless, they do not think reading fiction is useful (cognition). On average, students in grade 7 read adolescent literature in their spare time two and a half hours per week. In grade 11, the average amount of reading diminishes to just over half an hour per week. These figures are somewhat rosy since the sample was not truly random. Girls were more inclined to participate and from the cross sectional study we know girls have higher scores for cognition, affect, and intentions and they read more fiction than boys. Also, those who dropped

out were not included in the analyses and analysis of mortality shows that these students have slightly lower scores on intentions.

To answer the research question concerning relationships between changes in attitude scores and independent variables, several regression analyses were carried out. To analyze the changes between grades 7 and 8, for instance, an attitude score in grade 8 is predicted by a constant and the attitude score for the same aspect measured in grade 7. By adding an independent variable to this regression equation, the amount of variance in the change of response scores explained by this independent variable is ascertained[3]. The prediction of change is carried out for changes that take place during one or two years, that is from grades 7 to 8, 8 to 9 and 7 to 9 (cohort 1) and from grades 9 to 10, 10 to 11 and 9 to 11 (cohort 2). Results of the regression analyses are reported in Tables A9 to A18 (see Appendix). Percentages of explained variance are given for significant R square changes only.

In Table A8 (see Appendix) reliabilities (Cronbach's alpha) are presented of independent variables measured with more than one item and of scores for amount of leisure reading. Only amount of parental support for school work in grade 7 (cohort 1) (alpha = .58) is below the commonly agreed upon minimum for research into relationships at a group level of .60. In the Appendix we also present the questionnaire items for measuring the different independent variables.

Table A9 (see Appendix) reports the percentages of variance explained in the changes of attitude scores by the independent variable 'gender'. Gender significantly predicts changes for all attitude scores except control. All effects are positive, which means female participants show less of a downward trend than male participants. For cognition and intentions, percentages of explained variance are evenly spread over (almost) all time spans. For affect and subjective norm ,significant effects are found in higher grades only. From grade 9 onwards, boys' enjoyment of reading literature declines faster than that displayed by girls and the same holds for the perception that one should read literature (subjective norm). For changes in actual reading behavior only one significant effect is found; between grades 7 and 8 time spent reading drops faster for boys than for girls.

Based on Verboord (2003), we expected variables related to parental reading socialization to have a positive effect on changes in attitude scores. In Table A10 (see Appendix) we see the higher the educational level of the parents, the less the decline in attitude and behavior. Effects are significant only in lower grades, and the educational level of the mother is of more importance than that of the father. Children of more highly educated parents show a smaller decline in cognition and in lower grades their intentions to read literature diminish less.

---

[3] *All regression analyses presented always predicted the posttestscore by a constant, the pretestscore and just one other independent variable. So in Table A9 in the Appendix the '3.4**' in the first row below 'grade 8-9' indicates the following: The score for cognition in grade 9 is predicted by a constant, the score for cognition in grade 8 and the independent variable gender. The adding of the variable 'gender' to the regression equation containing only the constant and the cognition score in grade 8, gives an R square change of 3.4 percent.*

Another variable related to parental reading socialization is the cultural level of the home environment (see Table A11 in Appendix). The strongest effects are found on 'subjective norm'. The higher the cultural level of the home environment, the smaller the negative changes in subjective norm. These effects occur at all time spans, except from grades 9 to 10. Students from a culturally more sophisticated home environment also show less decline in their intention to read literature, though only in the three lower grades. In lower grades, the cognition scores of these students also diminish less as does the amount of reading of literature, again only between grades 9 and 10.

The next variable related to parental reading socialization is the amount of parental support for school work. This variable has little effect on changes in attitude scores, but effects found are positive, as expected (see Table A12 in Appendix). Students receiving more parental support show a somewhat lesser downward trend on cognition and on 'subjective norm', but only in lower grades.

Motivation to achieve in school is the last variable we classified as belonging to parental reading socialization. At the onset of the study we expected this variable to have positive effects on changes in reading attitude and reading behavior. However, all significant effects found are negative (see Table A13 in Appendix). The attitude scores of students with a high motivation to achieve in school decline faster than scores of those with less motivation to achieve in school. These effects apply for cognition in higher grades and for affect and intentions for the decline between grades 7 to 9 and the decline between grades 9 to 11. Perhaps students who want to perform well in school focus more on subjects like Maths and Science and attach less importance to literary studies and reading literature.

In Table A14 (see Appendix) we see that, especially in lower grades, students with a larger vocabulary show a smaller decline on all aspects of the MPB. The most plausible explanation is that students who read more enlarge their vocabulary in doing so and that this process takes place mainly before the students reach the age of 15.

The last group of independent variables concerns literary education. Students receiving more lessons in literary education per week show less decline in all aspects of the MPB, except for control and reading behavior (see Table A15 in Appendix). From grades 7 to 8, the decrease in affect, subjective norm and intentions is slower when students receive more lessons in literary education. In grade 11, the same holds for affect and subjective norm. One exception is the effect of the number of lessons in literary education in grade 7 on changes in subjective norm. Given the positive effect found for the number of lessons in grade 8 on changes between grades 7 and 8, the interpretation of this negative effect is unclear.

The last three independent variables concern the contents of the literary education lessons: amount of text experiencing, amount of structural analysis and amount of literary history. Text experiencing is a student-centered approach in literary education, structural analysis and literary history are aspects of culture-centered literary education (see Appendix ' Instruments' for questionnaire items). On the basis of Verboord (2003) and Van Schooten and De Glopper (2003), we expected positive ef-

fects of the amount of text experiencing and negative effects of both culture-centered approaches in lower grades and positive effects of these culture-centered approaches in higher grades[4].

Text experiencing appears to have positive effects on changes in all attitude scores except control (see Table A16 in Appendix). There is one small negative effect for subjective norm between grades 9-10, but six much larger positive effects on subjective norm show that the negative effect is probably a coincidence. Positive effects are strongest in higher grades. In lower grades significant effects are found for affect, subjective norm and intentions. In higher grades all attitude aspects except control decrease less if students receive more text experiencing.

In Table A17 (see Appendix) we present the results for the amount of structural analysis in literary education. All significant effects of the amount of structural analysis on changes in attitude scores are positive. We find the most positive effects in higher grades, but also some positive effects on affect in lower grades. Structural analysis seems beneficial for promoting a positive attitude towards literary reading and for stimulating reading behavior.

Table A18 (see Appendix) presents results concerning the amount of literary history. Clearly, literary history has positive effects on the changes in attitude scores, except for cognition, but only from grade 10 onwards.

7.2 Literary response in the longitudinal data set

For the adapted LRQ model with two different second order factors (Van Schooten & De Glopper, 2001) a close fit was found for students in higher general and pre-academic secondary education (N = 691/448/259, χ^2 = 14266.564, df = 6740, p = .000; rmsea = .028) (see Table A19 in appendix). A check of the comparability of the means of both grades 9 (of cohort 1 and 2 respectively) again shows that when only data is included from respondents that filled out the LRQ all three times, no significant differences between both grades 9 are found. For subsequent analyses, we therefore only used the data of respondents that filled out the LRQ all three times. To facilitate the presentation of results, the rejection scores in the longitudinal study are reverse scored. This means that in the longitudinal study high rejection scores indicate respondents do *not* reject and low scores indicate respondents *do* reject careful reading, scholarly study and instructional presentation of literary texts. Results show all aspects of the LRQ diminish with age from grade 7 to 11 (see Table A20 and A21 in Appendix). Leisure scores especially drop at a very fast rate. In grade 7 on average, students like to read fiction (leisure), are focused on a plot or story line with an emphasis on interesting actions and compelling conclusions (story), tend to identify with fictional characters (empathy), have a perceptually

4 Correlations between these three independent variables measured at three occasions range from .30 to .76. Correlations between the number of lessons in literary education per measurement moment and each of the three aspects of literary education per measurement moment run from .30 to .59. Given the high reliabilities of each variable (see Appendix) it is clear that true score correlations are below 1.

vivid imaginary elaboration of the literary world described (imagery vividness), indicate that they recognize previous unrecognized qualities guided by the fictional text being read (insight), and do not reject careful reading, scholarly study and instructional presentation of literary texts (rejection of literary values). Students in grade 7 are not interested in the author's distinctive perspective, themes and style nor in the author's biographical place in a literary or intellectual tradition (concern with author). Mean scores on second order factors show students in grade 7 are rather absorbed in the story they read (trance) and that they take a neutral stand towards literary criticism and reflection on the meaning of what is read (literary interpretation).

In grade 11 on average, students still have positive response scores for leisure, story, vividness, rejection and trance. This means they still like to read for pleasure, are focused on plot or story line while reading with an emphasis on action and compelling conclusions, have a rather strong imaginary elaboration of the literary world, do not reject careful reading, scholarly study and instructional presentation of literary texts and still are quite captivated by the story they read.

For empathy, insight and literary interpretation, mean scores in grade 11 point to a negative position. Empathy scores become negative in grade 10. From grade 10 onwards, students on average do not identify with fictional characters anymore. From grade 8 onwards, on average students indicate they do not recognize previously unrecognized qualities while reading fiction. And the position students take towards literary criticism goes from neutral in grade 7 to negative in grade 8 and worse in higher grades. Comparison of the response scores of students who drop out of the investigation with those who remain, shows these results probably present a flattering picture.

In addition, for literary response scores, the relations between changes in scores over time and student variables were charted. Reliabilities of independent variables are presented in Table A8 in the Appendix. In the cross sectional study we found that girls have higher response scores than boys on leisure, insight, empathy, vividness, rejection and both second-order factors. Now we see that for all response scores, girls also show a smaller decrease than boys for all first and second order factors (see Table A22). These results are in line with previous research from which we know girls read more than boys (Hendon & Hendon, 1991; Van Schooten & De Glopper, 2002), show a more emotional response (Crawford & Chaffin, 1986), show less distance to or empathize more with the fictional work (Bleich, 1986b; Flynn, 1986) and are more focused on issues and messages in the text (Hansen, 1986).

Students with larger vocabularies show a smaller decrease in leisure, story, empathy, vividness, rejection and the second-order factor trance (see Table A23). The explanation of this effect can go two ways. It appears that students who like to read and read more may enlarge their vocabularies. On the other hand, students with a larger vocabulary probably have a higher verbal intelligence and may therefore be more inclined to read and less inclined to reject scholarly study of literary texts. Knowing the meaning of more words may also be helpful in stimulating empathic

reactions while reading, in giving a more vivid representation of what is read and in producing a trance state while reading.

The amount of leisure reading is a strong predictor of changes in literary response scores (see Table A24). It significantly predicts changes in leisure, story, empathy, vividness and rejection and consequently also trance. In general we may state all literary response scores connected to the trance factor decrease less with age for students who read more fiction in their spare time. This result was to be expected; students who like a trance state while reading can be expected to read more. Also, changes in rejection are predicted by the amount of leisure reading. Again, students who read more fiction in their spare time show less increase in their rejection of literary values. Insight, author and the second order factor literary interpretation, are not significantly predicted by the amount of leisure reading. Students who like to interpret what they read and keep liking it when growing older are not necessarily the students who read the most.

As in the results for the attitude instrument, variables related to literary socialization (Verboord, 2003) show a relation to changes in response scores. The educational level of the mother has a small negative relation with changes in empathy between grade 9-11 and small positive effects on changes in concern with author and in literary interpretation, both between grade 7-8. Possibly educated mothers stimulate their children to interpret and show interest in authors or children identify with their mother and imitate her behavior. The negative effect on changes in empathy could mean that 'intellectual' education also creates distance or hinders empathic reactions (see Table A25).

The cultural level of the home environment has positive effects on changes in leisure, insight, concern with author and rejecting literary values (see Table A26). Students coming from a culturally more sophisticated home environment show less negative trends in their enjoyment of reading for pleasure, in the amount of recognition of previously unrecognized qualities while reading fiction, in their interest in the author and especially in their interest in careful reading and instructional presentation of literary texts. The cultural level of the home environment appears to have the greatest influence on changes in response factors concerning literary interpretation, although changes in the literary interpretation factor itself are not significantly predicted.

As we already found for changes in attitude scores and for response scores, the importance students and their parents attach to the student's achievement in school has significant negative effects (see Table A27). These effects concern changes in insight, concern with author and literary interpretation.

The number of lessons in literary education per week seems to have a slight positive effect on changes in response for leisure, empathy, vividness, author and trance and small negative effects on rejection and insight (see Table A28). In addition, the content of the literary education is important in predicting changes in response scores. The amount of text experiencing is the best predictor of these changes (see Table A29). All effects are positive and changes in all first and second-order factors are significantly predicted by this variable. Positive effects are found for changes between all grades. It seems clear that to counter negative trends in the literary re-

sponse of students in secondary education, the text experiencing method is promising.

The amount of structural analysis also has significant effects on changes in all literary response scores. Not all effects are positive however (see Table A30). In general, the amount of structural analysis has positive effects in higher grades and sometimes negative effects in lower grades. The results suggest that structural analysis is not advantageous for students' literary response in grade 7 to 9, but beneficial for students' literary response in grade 10 and higher.

The amount of literary history in literary education has significant positive effects on changes in leisure, vividness, author, rejecting and trance and one negative effect on story (see Table A31). The positive effects appear for changes between all grades, and, unlike structural analysis, literary history does seem beneficial for the literary response of younger students too. The percentages of explained variance are moderate and run from 2.1 to 5.0%. The positive effects on author were to be expected. The positive effects on rejection show that literary history, like structural analysis, can motivate students in higher grades. The positive effects on leisure, vividness and trance show that literary history does not hinder reading for pleasure - it might even stimulate it.

A negative effect for story is found between grades 9-11 (4% of explained variance). It could be that literary history stimulates a less story driven way of reading by evoking interest in the author's themes, style etc. and thus slightly diminishing the focus on plot and compelling actions.

8. CONCLUSION AND DISCUSSION

The results of the studies described in this article show that the attitude questionnaire and the LRQ are valid for measuring both reading attitude and the levels of literary response of students in secondary education, respectively.

Of all aspects distinguished in the MPB, the best predictor of the actual reading of (adolescent) literature is the affective component. Students in secondary education read fiction when they think reading fiction is pleasurable and in that case, reading increases with age.

Students in the two highest streams and in the lower grades of secondary education also read more when they think they ought to. In grades 10 and 11 of the highest streams of secondary education, we found a relationship between control and actual behavior. Possibly an increasing workload at school causes this relationship.

All aspects of the MPB diminish when students grow older. Nevertheless, mean MPB scores in all grades of the two highest streams of secondary education indicate a positive stance towards reading adolescent literature, except for cognition. So, on average, these students do not think reading adolescent literature is useful, but they do like reading fiction, think they ought to read fiction and have enough opportunities to do so. In grades 7 to 9 of *all* four streams of secondary education on average students show a positive attitude, except for subjective norm and affect. The mean score for affect is neutral and the mean score for subjective norm points to a nega-

tive stance. So, on average these students do not think they should read and do not like or dislike reading. The difference between the results for both samples is probably caused by the relatively negative attitude of students in the two lowest streams of secondary education.

For literary response, results indicate that we can validly distinguish between at least seven different ways of responding to fictional texts. These are grouped into two main factors: the degree to which one is absorbed by the story (trance) and the degree to which one likes to interpret what is read (literary interpretation). This suggests that these two forms of responding are not opposite but complementary responses and that a complete response encompasses both. Trance and literary interpretation show a correlation of .34 in grades 7 to 9 of all four streams of secondary education and of .75 in grades 7 to 11 in the two highest streams of secondary education. Clearly, students in grades 7 to 11 of the two highest streams of secondary education combine both forms of response much more often than students in grades 7 to 9 of all four streams of secondary education.

Mean scores indicate that on average students in grades 7 to 9 of all streams of secondary education like to read fiction for pleasure (leisure), are focused on plot or story line (story), identify with fictional characters (empathy) and tend to show an imaginary elaboration of the literary world (vividness). On average, they do not like to read by searching for previously unrecognized qualities (insight), are not interested in the author's perspective, themes and style (author) and reject careful reading, scholarly study and instructional presentation of literary texts (rejection). Students in the two highest streams of secondary education show a similar result. In grades 10 and 11 of the two highest streams of secondary education , the mean scores for 'empathy' also indicate a negative stance.

Furthermore, results show that girls have a more positive attitude towards reading fiction and a more positive literary response than boys. The same holds for students in higher levels of secondary education. Next, attitude and response scores diminish with age, but they diminish less for girls, for students coming from a culturally more sophisticated home environment, students with more educated parents, students with a larger vocabulary, students who read more fiction in their spare time and for students with a lower motivation to achieve in school. The finding that the cultural socialization at home positively affects the reading of literature has also been demonstrated in Kraaykamp (2003) and Verboord (2003).

9. EDUCATIONAL IMPLICATIONS

An important finding is that of all components of the MPB, affect is the best predictor of intentions to read fiction, the direct precursor of actual reading behavior. This implies that the best way to stimulate students to read fiction, is to have them experience reading fiction as pleasurable. This means that teachers who want their students to read should make a serious effort at finding books their students enjoy. This result corresponds to Stokmans (1999) who found that while adult frequent fiction readers read for 'enjoyment', 'escape' and 'development/utility', enjoyment was the best predictor of reading behavior.

Next, literary education appears to have a favorable effect on both literary response and reading attitude, and thus on reading behavior. Kraaykamp and Dijkstra (1999) also found that more literary education leads to reading more complex and prestigious books later in life and Kraaykamp (2003) shows that cultural instruction in secondary school stimulates interest in literature. Bortolussi and Dixon (1996) show that lessons in literary history and in structural analysis influence response. In the four studies examined in this article, all three forms of literary education measured appear beneficial, but text experiencing has the greatest influence. Verboord and Van Rees (2003) reported that students who received student-centered literary education read more prestigious books later in life than students receiving culture-centered literary education. In our studies however, culture-centered literary education shows positive effects on reading attitude, literary response and reading behavior. Literary history has positive effects on changes in literary response between all grades, and for changes in higher grades only, on reading attitude and reading behavior. Structural analysis has positive effects in all grades on changes in reading attitude, but only in higher grades on changes in literary response. Similar to the results of Verboord and Van Rees (2003) we found some negative effects of structural analysis on changes in literary response, but these were in lower grades only. We conclude that literary education makes a difference and that text experiencing is the best way to motivate students to read fiction and to maintain a favorable response, although (most) effects of structural analysis and literary history are also positive.

Another educational implication of the studies presented here is that the amount of reading fiction and vocabulary size are connected. A plausible explanation is that students develop a larger vocabulary by reading fiction. Since students in the lowest stream of secondary education read much less than other students, this finding could also point to the so-called Matthew effect. The Matthew effect refers to the mechanism by which an underdeveloped skill hinders the development of that same skill. Reading leads to vocabulary growth and a greater vocabulary facilitates reading comprehension. This is all the more important since reading ability is a prerequisite for all school subjects. Stanovich (1993) shows that positive effects of free reading apply for skillful as well as less skillful readers. Since free reading often implies fictional reading, the educational importance of fictional reading and a positive reading attitude and literary response seems clear. In the IEA literacy study, countries in which students of 9 and 14 years of age show a relatively high reading proficiency are those with curricula emphasizing literary reading. Countries in which the students show a relatively low reading proficiency emphasize functional reading proficiency in their curricula (Lundberg and Linnakylä, 1992). A greater interest in efferent than in aesthetic reading might be associated with the motivation to achieve in school, thus explaining the negative relation found between achievement motivation on the one hand and attitude and response scores on the other.

For reading promotion these results imply that next to stimulating affect towards reading fiction, aiming at more literary education lessons in secondary education is also a worthwhile target of reading promotion. With regard to the contents of literary

education lessons, text experiencing shows the largest effects, but literary history and structural analysis also seem beneficial for both reading attitude and literary response.

Furthermore, given the plausibility of the Matthew effect, the importance of reading promotion is not only that it stimulates a greater awareness of literature, but reading fiction in spare time could be an important determinant of educational careers as well.

10. IMPLICATIONS FOR FUTURE RESEARCH

The results of the studies described in this article suggest the need for further research. The first line of research bears upon a continuing examination of the validity of the instruments used. Second, research into new insights concerning the theoretical models used seems appropriate. The third line of research suggested here concerns the evaluation of reading promotion projects in secondary education.

The first question regarding the MPB and the LRQ is to what extent these self-reporting measures are valid. For the MPB it would be interesting to conduct case studies to verify whether the item contents chosen in the attitude questionnaire cover all relevant aspects of the construct for the population under consideration. For instance, did we ask the right questions to measure the subjective norm or the perceived behavioral control of students in secondary education or did we overlook important aspects of these constructs? It could be that students in secondary education, for instance, have other cognitions regarding reading fiction than the ones we included in the questionnaire.

For further study into the validity of the LRQ, one could use think-aloud protocols. Also MRI-scans might be helpful in verifying the extent to which activity in the brain during reading reflects literary interpretation or trance. Miall (1995) posits the right hemisphere to be holistic and the left to be analytic. Thus, we could verify whether readers scoring high on literary interpretation display more activity in the left side of the brain than those scoring low on literary interpretation. Another interesting question is whether respondents who score high on imagery vividness show more brain activity indicating the processing of images while reading a specific text fragment than those scoring low on imagery vividness.

The second line of research proposed here concerns new insights regarding the theoretical models used. In recent attitude research based on the MPB, several new concepts have been added to the model. The concept ‘attitude strength’ is introduced as mediating the effects of attitudes on behavior (e.g. Cacioppo, Petty, & Crites, 1994; Bizer, Barden & Petty, 2003; Bizer & Krosnick, 2001). Attitude strength is divided into sub constructs like ‘extremity’, ‘importance’ and ‘accessibility’. Adding these constructs to the attitude questionnaire might improve the prediction of reading behavior.

Also the variable ‘habit’ is seen as an important mediating variable between attitude and behavior (Ronis, Yates & Kirscht, 1989; Malhotra, 2003). The prediction of behavior from attitudes implies a conscious action in deciding to perform the behavior under consideration. There is evidence that the MPB is valid only when indi-

viduals have both motivation and opportunity to act carefully and consciously. When this motivation or opportunity is lacking, 'individuals may simply retrieve an affective categorization of the attitude object and behave consistently with it.' (Malhotra, 2003; p3). This implies that under certain conditions all aspects of the MPB except 'affect' are irrelevant for predicting behavior. Reading behavior might also be sustained or inhibited by habits. Introducing a measure indicating the extent to which reading behavior is habitual could also improve the prediction of reading behavior.

The presumed causal relations in the attitude model should be also checked. Huskinson and Haddock (2003) suppose that cognition does not always influence affect, but that affect and cognition can both directly influence behavioral intentions and that we must distinguish between cognition- and affect- based individuals. Zajonc (1980) posits that affect takes precedence over cognition (e.g. Damasio, 2003). This could mean that the causal relation between cognition and affect as stipulated in the MPB is not, or is not always, valid.

Other theories suggest a causal relation between behavior and attitudes, like self-perception theory (Bizer, Barden & Petty, 2003), self attribution theories and cognitive consistency theories (Cacioppo, Petty, & Crites, 1994).

Knulst and Van den Broek (2003) demonstrate that decline in reading behavior with age is more pronounced for readers of romantic novels compared to readers of high-brow literature. This suggests that the studies presented in this article should have differentiated between different kinds of readers. Reading preferences should be included as an explanatory variable.

The third line of research suggested here concerns the evaluation of reading promotion projects. As stated in the introduction, the research presented here was initiated to provide some theoretical underpinning of the reading promotion projects and to provide a basis for evaluating these projects. The results of the studies presented here show which aspects of reading attitude one should aim at when trying to promote fictional reading among students in secondary education. The results also show which type of students read the least and show the greatest decline in reading attitude, reading behavior and reader response and are thus most in need of reading promotion. The effects of literary education on attitude, behavior and response show that reading promotion could also imply intensifying literary education.

Next, these studies make clear that the attitude questionnaire, the logbooks and the LRQ are suitable as dependent variables in research aiming at evaluating reading promotion projects. However, one could ask a question about why stimulating students to read more and better books and to develop a more positive attitude toward reading is a valuable goal. Probably reading more and better books is implicitly thought to enhance other valuable outcomes. One of these outcomes is already mentioned as the Matthew effect. Reading fiction in spare time might boost educational careers. Also one might consider striving for a higher level of cultural civilization - a valuable goal in itself. But of course one can think of other valuable outcomes of reading fiction. For instance, it would be interesting to verify the extent to which reading fiction is mediating self-concept or one's personality. Literature might act as

a vehicle for development and change in the self. Limón (2001) explains conceptual change via cognitive conflict. She sees anomalous data as the start of conceptual change. Responses to these anomalous data can be unadapted (conflict is not noticed), or adapted (ignoring the conflict or adjusting one's theory partly or completely). So anomalous data are seen as the start of conceptual change. Fictional stories might provide these anomalous data. It would be interesting to first assess the current state of knowledge of participants in a research study and then to select literary stories presenting information that contradicts this current knowledge. The question then is if, and under what circumstances, conceptual change takes place. This way the pedagogical value of fictional works can be charted. Miall and Kuiken (1994; p351) also mention 'the way by which the distinctive language of literature fosters changes in the way we understand our personal life-worlds' and also (Miall & Kuiken, 2002; p221) 'the modifying powers of feeling. Aesthetic and narrative feelings interact to produce metaphors of personal identification that modify self-understanding'.

REFERENCES

Ajzen, I. (1988). *Attitude, personality and behavior*. Buckingham; Open University Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human* Decision Processes, *50*, 179-211.

Ajzen, I. ,& Fishbein, M. (1977). Attitude-behaviour relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour.* Englewood Cliffs, NJ: Prentice Hall.

Ajzen, I., Timko, C., & White, J. B. (1982). Self-monitoring and the attitude-behaviour relation. *Journal of Personality and Social Psychology, 42,* 426-435.

Bandura, A. & Walters, R. H. (1963). *Social Learning and Personality Development.* New York: Holt, Rhinehart and Winston.

Barnes, D., Barnes, D., & Clarke, S. (1984). *Versions of English.* London: Heinemann.

Beach, R. (1993). *A Teacher's Introduction to Reader-Response Theories.* Urbana: NCTE. (ERIC Reproduction Service No. ED355523)

Bentler, P. M. & Speckart, G. (1979). Models of attitude-behavior relations. *Psychological Review, 86,* 452-464.

Bentler, P. M., & Speckart, G. (1981). Attitudes "cause" behavior: A structural equation analysis. *Journal of Personality and Social Psychology, 40*, 226-238.

Bizer, G. Y., Barden, J. C., & Petty, R. E. (2003). Attitudes. In L. Nadel, (Ed.). *Encyclopedia of Cognitive Science* (Vol. 1, pp. 247-253). New York: Nature Publishing Group.

Bizer, G. Y., & Krosnick, J. A. (2001). Exploring the Structure of Strength-Related Attitude Features: The Relation Between Attitude Importance and Attitude Accessibility. *Journal of Personality and Social Psychology, 81*(4), 566-586.

Black, J., & Seifert, C. (1985). The psychological study of story understanding. In C. Cooper (Ed.), *Research response to literature and the teaching of literature* (pp. 190-211). Norwood, NJ: Ablex.

Bleich, D. (1986a). Cognitive stereoscopy and the study of language and literature. In B. Peterson (Ed.), *Convergences* (pp. 99-114). Urbana IL: National Council of Teachers of English.

Bleich, D. (1986b). Gender interests in reading and language. In E. A. Flynn & P. P. Schweickart (Eds.), *Gender and reading: essays on readers, texts, and contexts* (pp. 213-238). Baltimore: Johns Hopkins University Press.

Bortolussi, M., & Dixon, P. (1996). The effects of formal training on literary reception. *Poetics, 23*, 471-487.

Britton, J. (1984). Viewpoints: The distinction between participant and spectator role language in research and practice. *Research in the Teaching of English, 18*, 320-331.

Bunbury, R. (1985). Levels of response to literature. *Australian Journal of Reading, 8*, 220-228.
Cacioppo, J. T., Petty, R. E., & Crites, S. L. (1994). Attitude Change. In V. S. Ramachandran (Ed.). *Encyclopedia of Human Behavior*. (Vol. 1, pp. 261-270). New York: Academic Press.
Crawford, M., & Chaffin, R. (1986). The reader's construction of meaning: Cognitive research on gender and comprehension. In E. A. Flynn & P. P. Schweickart (Eds.), *Gender and reading: essays on readers, texts, and contexts* (pp. 3-30). Baltimore: Johns Hopkins University Press.
Damasio, A. (2003). *Looking for Spinoza: Joy, sorrow, and the feeling brain.* Orlando, FL: Harcourt.
DeKay, S. (1996). *Classroom research into the teaching of literature.* Fordham University. (ERIC Document Reproduction Service No. ED399540).
Dias, P., & Hayhoe, M. (1987). *Developing response to poetry*. Philadelphia, PA: Milton Keynes: Open University Press.
Dishman, R. K. (1982). Compliance/adherence in health related exercise. *Health Psychology, 3*, 237-267.
Elley, W. B. (1992). *How in the world do students read?* Hamburg: International Association for the Evaluation of Educational Achievement.
Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling, 8,* 430-457.
Fazio, R. H. (1989). On the Power and Functionality of Attitudes: The Role of Attitude Accessibility. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald, (Eds.), *Attitude Structure and Function.* (pp. 153-179). Hillsdale, NJ: Erlbaum.
Fish, S.E. (1970). Literature in the reader: Affective Stylistics. *New Literary History, 2,* 123-162.
Flynn, E. (1986). Gender and reading. In E. Flynn, & P. Schweickart (Eds.), *Gender and reading* (pp. 267-289). Baltimore: John Hopkins University Press.
Fredericks, A. J. & Dosset, K. L. (1983). Attitude-behavior relations: A comparison of the Fishbein-Ajzen and the Bentler-Speckart models. *Journal of Personality and Social Psychology, 45*, 501-512.
Goetz, E.T., Sadoski, M., Stowe, M.L., Fetsco, T.G., and Kemp, S.G. (1993). Imagery and emotional response in reading literary text. *Poetics, 22,* 35-49.
Goetz, E. T., & Sadoski, M. (1996). Imaginative Processes in Literary Comprehension: Bringing the Text to Life. In R. J. Kreuz & M. S. MacNealy (Eds.), *Empirical approaches to literature and aesthetics*, *52* (pp. 221-240). New Jersey: Ablex Publishing Corporation.
Gold, J. (1990). *Read for your life: Literature as a life support system*. Markham, Ontario, Canada: Fitzhenry & Whiteside.
Golden, J., & Guthrie, J. (1986). Convergence and divergence in reader response to literature. *Reading Research Quarterly, 21,* 408-421.
Hansen, E. (1986). *Emotional processes engendered by poetry and prose reading.* Stockholm: Almquist & Wiksell.
Hansson, G. (1990). *Reading and understanding literature* (Report Ser. No. 4.5). Albany, NY: State University of New York, Center for the Learning and Teaching of Literature.
Hakemulder, J. (1997). Effects of Literature: A Review. In S. Tötösy de Zepetnek & I. Sywenky (Eds.), *The Systemic and Empirical Approach to Literature and Culture as Theory and Application.* Alberta: University of Alberta.
Harste, N. (1985). Portrait of a new paradigm: Reading comprehension research. In A. Crismore (Ed.), *Landscapes: A state-of-the-art assessment of reading comprehension research. 1974-1984* (pp. 12:1-24). Bloomington: Center for Reading and Language Studies. Univ. of Indiana.
Hays, W. L. (1981). *Statistics*. New York: CBS College Publishing.
Heath, S. (1985). Being literate in America: A sociohistorical prospective. In J. Niles & R. Lalik (Eds.), *Issues in literacy: A research perspective* (pp. 1-18). Rochester, NY: National Reading Conference.
Hendon, W. S., & Hendon, R. C. (1991). Barren my wit? The impact of television on reading. *Poetics*, *20*, 319-341.
Hirsch, E. D. (1967). *Validity in interpretation*. New Haven: Yale University Press.
Hoorn, J. (1997). Electrocortical Evidence for the Anomaly Theory of Metaphor Processing: A Brief Introduction. In S. Tötösy de Zepetnek & I. Sywenky (Eds.), *The systemic and empirical approach to literature and culture as theory and application.* University of Alberta. 67-74.
Hunt, R. A., & Vipond, D. (1985). Crash-testing a transactional model of literary reading. *Reade: Essays in Reader-Oriented Theory. 14*, 23-39.

Huskinson, T. L. H. & Haddock, G. (2004). Individual differences in attitude structure: Variance in the chronic reliance on affective and cognitive information. *Journal of Experimental Social Psychology, 40* (1), 82-90.

Hynds, S. (1985). Interpersonal cognitive complexity and the literary response processes of adolescent readers. *Research in the Teaching of English, 19,* 386-404.

Hynds, S. (1990). *Thinking about characters and thinking about people: Social cognition, literary response, and character attribution processes among young adult readers.* Paper delivered at the annual conference of the American Educational Research Association. Boston, Massachussetts. (ERIC Document Reproduction Service No. ED341062).

Iser, W. (1978). *The Act of Reading.* Baltimore: The Johns Hopkins UP.

Janssen, T. M. (1998). *Literatuuronderwijs bij benadering. Een empirisch onderzoek naar de vormgeving en opbrengsten van het literatuuronderwijs Nederlands in de bovenbouw van het havo en vwo* [Approaches to literature teaching. An empirical study of the form and results of Dutch literature teaching in higher general secondary and pre-university education]. Amsterdam: Thesis Publishers.

Keil, L. J. (1991). Attitude Development. In T. Husen, & T. N. Postlethwaite, (Eds.), *The International Encyclopedia of Education, 1*. (pp. 346-352). New York: Pergamon Press.

Kintgen, E. (1983). *The perception of poetry*. Bloomington, IN: Indiana University Press.

Knulst, W., & Kraaykamp, G. (1996). *Leesgewoonten: Een halve eeuw onderzoek naar het lezen en zijn belagers.* [Reading habits: Half a century of research into reading and its rivals]. Rijswijk, The Netherlands: Sociaal en Cultureel Planbureau.

Knulst, W., & Kraaykamp, G. (1998). Trends in leisure reading: Forty years of research on reading in the Netherlands. *Poetics, 26*, 21-41.

Knulst, W., & Van den Broek, A. (2003). The readership of books in times of de-reading. *Poetics, 31* (3,4), 213-233.

Kohlberg, L. & Zigler, E. (1967) The impact of cognitive maturity on the development of sex-role attitudes in the years 4 to 8. *Genetic Psychological Monograph, 75*, 89-165.

Koolstra, C., Van der Voort, T., & Vooijs, M. (1992). Drie verklaringsmodellen voor de reductie van het lezen van boeken door de televisie (Three explanatory models for the reduction of the amount of reading books caused by television). *Tijdschrift voor Onderwijsresearch, 17*(3), 131-142.

Kraaykamp, G. (2003). Literary socialization and reading preferences. Effects of parents, the library, and the school. *Poetics, 31*(3/4), 235-257.

Kraaykamp, G. & Dijkstra, K. (1999). Preferences in leisure time book reading. A study on the social differentiation in book reading for the Netherlands. *Poetics, 26*, 203-234.

Ley, T. C., Schaer, B. B., & Dismukes, B. W. (1994). Longitudinal study of the reading attitudes and behaviors of middle school students. *Reading Psychology, 15,* 11-38.

Limón, M. (2001). On the cognitive conflict as an instructional strategy for conceptual change: A critical appraisal. *Learning and Instruction, 11*, 357-380.

Lundberg, I., & Linnakylä, P. (1992). *Teaching reading around the world.* Hamburg: IEA.

Malhotra, N. K. (2005). Attitude and affect: New frontiers of research in the 21st century. *Journal of Business Research, 58* (4), 477-482.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods. 1,* 2, 130-149.

Mailloux, S. (1984). *Interpretive Conventions. The Reader in the study of American fiction.* London: Cornell University Press.

Martinez, M. F. (1983). Young children's verbal responses to literature in parent-child story-time interactions (Doctoral dissertation, University of Texas at Austin). *Dissertation Abstracts International, 44,* 1044A.

McGuire, W. J. (1989). The structure of individual attitudes and attitude systems. In A.R. Pratkanis, S.J. Breckler, & A.G. Greenwald, (Eds.), *Attitude structure and function.* (pp. 37-69). Hillsdale, NJ: Erlbaum.

McKenna, M. C., & Kear, D. J. (1990). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher, 43,* 626-639.

McKenna, M. C., Kear, D. J., & Ellsworth, R. A. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly, 30,* 934-955.

Miall, D. S. (1995). Anticipation and feeling in literary response: A neuropsychological perspective. *Poetics*, *23*, 275-298.

Miall, D. S., & Kuiken, D. (1994). Foregrounding, defamiliarization, and affect: Response to literary stories. *Poetics, 22,* 389-407.
Miall, D. S., & Kuiken, D. (1995a). Anticipation and feeling in literary response: A neuropsychological perspective. *Poetics, 23,* 275-298.
Miall, D. S., & Kuiken, D. (1995b). Aspects of literary response: A new questionnaire. *Research in the Teaching of English*. 29, 37-58.
Miall, D. S., & Kuiken, D. (1998). The form of reading: Empirical studies of literariness. *Poetics, 25*, 327-341.
Miall, D. S. & Kuiken, D. (2002). A feeling for fiction: becoming what we behold. *Poetics, 30,* 221-241.
Mitchell, T. L., & Ley, T. C. (1996). The reading attitudes and behaviors of high school students. *Reading Psychology, 17,* 65-92.
Muthén, B., Kaplan, D., & Hollis, M. (1987). On structural equation modeling with data that are not missing completely at random. *Psychometrika, 52*, 431-462.
Muthèn, L. K., & Muthèn, B. O., 1998. *Mplus. The comprehensive modeling program for applied researchers. User's guide.* Los Angeles: Muthèn & Muthèn.
Nell, V. (1988). *Lost in a book. The psychology of reading for pleasure.* New Haven: Yale University Press.
Norwich, B. & Duncan, J. (1990). Attitudes, subjective norm, perceived preventive factors, intentions and learning science: testing a modified theory of reasoned action. *British Journal of Educational Psychology, 60,* 312-321.
Norwich, B., & Rovoli, I. (1993). Affective factors and learning behaviour in secondary schoolmathematics and English lessons for average and low attainers. *British Journal of Educational Psychology, 63,* 308-321.
Otter, M. E., & Schoonen, R. (1995). *Aap, noot, niets of het spook van de ontlezing in het basisonderwijs* [Ape, nut, nothing or the ghost of not reading in primary education]. Amsterdam: SCO-Kohnstamm Instituut.
Purves, A. (1973). *Literature education in ten countries. An empirical study*. New York: Wiley & Sons.
Purves, A. (1981). *Reading and literature: American achievement in international perspective.* Urbana, IL: National Council of Teachers of English.
Purves, A. (1986E). *Cultural literacy and response to literature*. Paper presented at the meeting of the NCTE Assembly on Research, Chicago.
Ronis, D. L., Yates, J. F., & Kirscht, J. P. (1989). Attitudes, decisions and habits as determinants of repeated behavior. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function*, (pp. 213-239). Hillsdale, NJ: Erlbaum.
Rosenblatt, L. M. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press.
Rosenblatt, L. M. (1995a) Continuing the Conversation: A Clarification. *Research in the Teaching of English, 29*(3), 349-354.
Rosenblatt, L. M. (1995b). *Literature as exploration*. 5th ed. New York; Modern Language Association.
Sadoski, M., & Quast, Z. (1990). Reader response and long term recall for journalistic text: The roles of imagery, affect, and importance. *Reading Research Quarterly, 25,* 256-272.
Sagan, K. (1977). *Dragons of Eden: Speculations on the evolution of human intelligence.* New York: Random House.
Schmidt, S. J. (1997) The empirical study of literature: Why and why not? In S. Tötösy de Zepetnek & I. Sywenky (Eds.), *The systemic and empirical approach to literature and culture as theory and application.* Alberta: University of Alberta. 137-150.
Scarlett, H. H., Press, A. N., & Crockett, W. H. (1971). Children's descriptions of peers: A Wernerian developmental analysis. *Child Development*, *44*, 439-453.
SCP (1992). Sociaal en Cultureel Rapport. (Social and cultural report.) Rijswijk: Sociaal en Cultureel Planbureau.
Simonson, M., & Maushak, N. (1996). Instructional technology and attitude change. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology.*(pp. 984-1016). New York: Simon & Schuster Macmillan.
Skinner, B. F. (1953). *Science and human behavior.* New York: MacMillan.
Smith, M. W. (1991). Constructing meaning from text: An analysis of ninth-grade reader responses. *Journal of Educational Research*, *84*, 262-271.

Stange, T. V., & Carter, E. J. (1995, May 2). *Gifted middle grade readers: Attitudes and interests in the 90's*. Paper presented at the Annual Convention of the International Reading Association. Anaheim: CA (ERIC Document Reproduction Service No. ED391346).

Stanovich, K. E. (1993). Does reading make you smart? Literacy and the development of verbal intelligence. In H. Reese (Ed.), *Advances in child development and behavior* (vol. 24. pp. 133-180). Academic Press, San Diego, CA.

Stokmans, M. J. W. (1999). Reading attitude and its effect on leisure time reading. *Poetics, 26,* 245-261.

Svensson, C. (1985). *The construction of poetic meaning: A cultural-developmental study of symbolic and nonsymbolic strategies in the interpretation of contemporary poetry*. Lund, Sweden: Liber Forlag.

Triandis, H. C. (1977). *Interpersonal behavior.* Monterey, CA: Brooks/Cole.

Triandis, H. C. (1980). Values, attitudes and interpersonal behavior. In M.M. Page, (Ed.), *Nebraska symposium on motivation, 1979*. (pp. 195-259). Lincoln, NE: University of Nebraska Press..

Van den Putte, B. & Hoogstraten, J. (1997). Applying structural equation modeling in the context of the theory of reasoned action: Some problems and solutions. *Structural Equation Modeling. 4*(4), 320-337.

Van der Pligt, J. & De Vries, N. K. de (1998). Belief importance in expectancy-value models of attitudes. *Journal of Applied Social Psychology, 28*(15), 1339-1354.

Van Dijk, T. (1979). Advice on theoretical poetics. *Poetics*, 8, 569-608.

Van Peer, W. (1996). The Ethics of literature: Two models. *Journal of literary semantics. An international review, 25*(2), 154-172.

Van Schooten, E. (1994). De bevordering van leesgedrag en -attitude [The stimulation of reading behavior and reading attitude]. *Spiegel, 3*, 61-75.

Van Schooten, E. & De Glopper, K. (2002). The relation between attitude toward reading adolescent literature and literary reading behavior. *Poetics, 30*, 169-194.

Van Schooten, E. & De Glopper, K. (2003). The development of literary response in secondary education. *Poetics, 31*, 155-187.

Van Schooten, E., De Glopper, K. & Stoel, R. D. (2004). Development of attitude toward reading adolescent literature and literary reading behavior. *Poetics, 32*, 343-386.

Van Schooten, E. & R. Oostdam (1997). Fictie-onderwijs in de basisvorming: attitudes van docenten en vormgeving van het onderwijs [Literary education in the basic secondary school curriculum: attitudes of teachers and instructional design]. *Spiegel, 15,* 1, 31-67.

Van Schooten, E., Oostdam, R. & De Glopper, K. (2001). Dimensions and predictors of literary response. *Journal of Literacy Research, 33*(1), 1-32.

Verboord, M. (2003). *Moet de meester dalen of de leerling klimmen? De invloed van het literatuuronderwijs en ouders op het lezen van boeken tussen 1975 en 2000.* (Should the teacher descend or should the student climb? The influence of literature instruction and parents on the reading of books between 1975 and 2000 (with a summary in English). Thesis. Universiteit Utrecht.

Verboord, M. & Van Rees, K. (2003). Do changes in socialization lead to decline in reading level? How parents, literary education, and popular culture affect the level of books read. *Poetics, 31* (3,4), 283-300.

Vriend, G. (1996) *Literatuuronderwijs als voldongen feit. Legitimeringen voor het leren lezen van literatuur op school* [Literary education as a fait accompli. Justification for learning how to read literature at school]. Amsterdam: Universiteit van Amsterdam. (Amsterdamse Historische Reeks dl 30)

Wellek, R. & Warren, A. (1949). *Theory of Literature*. New York: Harcourt.

Wicker, A. W. (1969). Attitudes vs actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues, 25,* 41-78.

Zaharias, J. (1986). The effects of genre and tone on undergraduate students' preferred patterns of response to two short stories and two poems. *Research in the Teaching of English*, *20*, 56-68.

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist, 35* (2), 151-175.

Zwaan, R. A. (1991). Some parameters of literary and news comprehension: Effects of discourse-type perspective on reading rate and surface structure representation. *Poetics, 20,* 139-156.

LITERARY RESPONSE AND ATTITUDE TOWARD READING FICTION IN SECONDARY EDUCATION: TRENDS AND PREDICTORS

APPENDIX

ERIK VAN SCHOOTEN* & KEES DE GLOPPER**

**Univerisity of Amsterdam & **University of Groningen, the Netherlands*

L1 – Educational Studies in Language and Literature (2006) 6 (1), p. 97-174

Correspondence to author: Erik van Schooten, SCO-Kohnstamm Institute of the University of Amsterdam, Wibautstraat 4, P.O. Box 94208, 1090 GE Amsterdam, The Netherlands, Email: evanschooten@fmg.uva.nl

APPENDIX

Table A1: Means and standard deviations of of attitude scores for different levels of the categorical predictors and significance levels of multivariate analyses of variance.

	Cognition		Affect		Norm		Control		Intention		Reading behavior	
Gender	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Boys (N = 143)	3.35	.65	2.69	.78	2.78	.54	3.81	.63	2.80	.87	57.36	97.00
Girls (N = 324)	3.59	.63	3.20	.76	2.96	.48	3.81	.60	3.28	.82	100.10	113.51
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.000	.028	.000	.086	.000	.063	.993	-	.000	.024	.000	.030
Grade												
7 (N = 175)	3.51	.68	3.17	.80	3.00	.53	3.88	.64	3.25	.86	103.48	121.04
8 (N = 140)	3.53	.61	3.04	.72	2.90	.47	3.72	.56	3.15	.76	79.80	93.95
9 (N = 152)	3.54	.65	2.91	.86	2.80	.50	3.82	.61	2.99	.93	75.65	110.22
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.879	-	.011	.015	.002	.022	.074	-	.021	.012	.047	.009
Type of student's education												
Junior vocational (N = 84)	3.17	.69	2.63	.71	2.73	.57	3.60	.58	2.60	.80	33.73	67.02
Lower general (N = 103)	3.38	.62	3.04	.84	2.90	.48	3.81	.64	3.10	.84	106.57	120.12
Higher general (N = 140)	3.68	.58	3.17	.74	2.93	.46	3.85	.59	3.29	.80	103.12	118.13
Pre-academic (N = 117)	3.72	.58	3.22	.83	3.02	.52	3.96	.59	3.35	.87	93.34	110.76
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.000	.107	.000	.064	.001	.031	.001	.033	.000	.092	.000	.051

Table A2: Means and standard deviations of first and second order factors for different levels of the categorical predictors and significance levels of multivariate analyses of variance.

	First order factors														Second order factors			
	Leisure		Story		Insight		Empathy		Author		Vividness		Rejecting		Trance		Lit. Interpr.	
Gender	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Boys (N = 159)	3.18	.78	3.67	.64	2.70	.61	2.93	.82	2.52	.68	3.33	.77	2.93	.55	3.28	.61	2.43	.45
Girls (N = 334)	3.70	.69	3.75	.51	3.01	.60	3.27	.77	2.64	.62	3.65	.70	2.73	.52	3.59	.53	2.64	.44
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.000	.044	.124	-	.000	.051	.000	.036	.060	-	.000	.039	.000	.027	.000	.064	.000	.044
Grade	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
7 (N = 177)	3.65	.73	3.73	.51	2.99	.59	3.31	.78	2.81	.66	3.59	.70	2.72	.52	3.57	.56	2.69	.43
8 (N = 156)	3.52	.74	3.77	.56	2.86	.60	3.09	.80	2.48	.60	3.57	.76	2.84	.54	3.49	.57	2.50	.43
9 (N = 160)	3.41	.81	3.68	.60	2.87	.66	3.07	.81	2.47	.61	3.47	.76	2.84	.54	3.41	.59	2.50	.47
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.018	.012	.392	-	.088	-	.008	.016	.000	.058	.292	-	.066	-	.035	.010	.000	.038
Type of student's education	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Junior vocational (N = 92)	3.07	.87	3.47	.69	2.83	.76	2.94	.83	2.64	.80	3.08	.78	2.91	.53	3.14	.69	2.52	.50
Lower general (N = 104)	3.52	.73	3.72	.55	2.82	.58	3.03	.83	2.69	.66	3.48	.74	2.77	.53	3.44	.55	2.58	.47
Higher general (N = 156)	3.68	.65	3.84	.48	2.97	.57	3.31	.77	2.52	.56	3.70	.62	2.79	.51	3.63	.46	2.56	.40
Pre-academic (N = 117)	3.72	.71	3.81	.49	2.96	.59	3.21	.76	2.51	.58	3.75	.70	2.71	.58	3.62	.51	2.59	.47
	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2	p	r^2
significance level (p) and effect size (r^2)	.000	.095	.000	.054	.117	-	.001	.026	.086	-	.000	.108	.067	-	.000	.103	.710	-

Table A3-1: Correlations between first and second order factors and continuous predictors.

	Leisure	Story	Insight	Empathy	Author	Vividness	Rejecting	Trance	Literary Interpretation
Vocabulary size (N = 458)	.26***	.10*	.06	.14**	-.13**	.33***	-.14**	.26***	.02
Frequency of reading (N = 458)	.46***	.05	.21***	.28***	.17***	.32***	-.30***	.37***	.29***
Minutes spent on reading (N = 458)	.44***	.07	.21***	.32***	.12*	.30***	-.24***	.37***	.25***
Minutes spent on watching television (N = 458)	-.19***	.06	-.07	-.19***	-.11*	-.21***	.13**	-.18***	-.14**
Frequency of making music (N = 458)	.19***	.01	.11*	.16**	.07	.20***	-.14**	.19***	.14**
Parental level of education (N = 494)	.25***	.12**	.11*	.16***	.04	.27***	-.12**	.26***	.12**
Cultural level of the home environment (N = 494)	.39***	.12**	.23***	.28***	.24***	.38***	-.29***	.38***	.34***
Teacher's level of education (N = 496)	.16***	.15**	.06	.12**	-.02	.22***	-.09	.20***	.05

*p<.05 **p<.01 ***p<.001 (two-tailed)

Table A3-2: Reliability coëfficiënts of student and home background variables. Number of items per scale, sample size and Cronbach's alpha or split-half coëfficiënt corrected for test length according to Spearman-Brown formula.

Variables	nr of items	sample size	Cronbach's alpha	corrected split half
Vocabulary size	40	583	.85	
Frequency of reading	2*	479		.88
Minutes spent on reading	2*	479		.84
Minutes spent on watching television	2*	479		.89
Frequency of making music	2*	479		.93
Parental level of education (sum both parents)	2	510	.73	
Cultural level of the home environment	16	510	.80	

* corrected correlations between summed scores of first 2 and last 3 weeks of log files.

Table A4: MPB, longitudinal study, parameters of the model fit of the first moment of measurement (grade 7 of cohort 1 and grade 9 of cohort 2). Translated items, regression weights (r.w.; constrained to be equal in both grades) and critical ratios or z-scores (c.r.). For model identification one item factor loading per latent variable was fixed at a value of one. This means that for these items no z-score could be computed. The one-sided significance levels for the z-scores: p< .05 if z > 1.96; p< .01 if z > 2.52; p< .001 if z > 3.30; p< .0001 if z > 3.90.

r.w.	c.r.	item number	cognition (behavioral beliefs and outcome evaluation):
1.00	-	53	Reading poetry is good for gaining general knowledge, for learning a lot about the world.
1.03	11.63	112	Watching a stage play is good for gaining general knowledge, for learning a lot about the world.
.76	9.52	118	Reading works of literature teaches you how to write a good story.
.86	10.59	63	Watching a stage play improves your linguistic feeling
.79	9.67	07	Reading poetry improves your knowledge about art and literature
1.03	11.48	52	Watching a stage play improves your knowledge about art and literature
1.27	12.65	56	Reading works of literature you get to know yourself and others.
1.12	11.91	117	Reading works of literature gives you a better understanding of people that are different from you.
1.30	12.76	110	Reading poetry makes you think more about yourself and others.
1.28	13.06	109	Watching a stage play makes you think more about yourself and others.
.96	11.13	60	Reading works of literature gives you a confident attitude.
1.14	12.55	64	Reading poetry improves your ability to solve personal problems.
1.35	13.81	116	Reading works of literature teaches you how to relate to people.
1.17	12.91	51	Reading poetry teaches you how to relate to people.
1.17	13.15	108	Watching stage plays teaches you how to relate to people.
.88	10.04	36	Reading many works of literature makes you do better in school.
.94	11.23	65	It is important for your educational and professional career to read poetry.
.95	11.53	107	It is important for your educational and professional career to watch stage plays.
1.00	10.43	09	Reading poetry is a good way to relax.
.90	10.43	50	Watching a stage play is a good way to relax.

r.w.	c.r.	item number	affect:
1.00	-	105	I enjoy reading literary works.
.83	19.71	10	I'm fed up with reading literary works.
.97	22.92	49	I like to read literary works in my spare time.
1.02	26.01	104	I think reading literary works is tedious
.88	24.70	103	I hate literary works.
.69	16.53	48	Sometimes reading a literary works makes me happy.
.80	19.50	12	I think it's great when I can read literary works in school.

r.w.	c.r.	item number	subjective norm (normative beliefs and motivation to comply):
1.00	-	73	Reading literary works is part of a proper education.
.97	8.69	96	My friends think it is important to read literary works.
1.55	10.42	74	Reading literary works is a waste of time, you had better do something useful.
1.15	9.08	20	If I were in charge, schools would spent more time on literary education.
1.56	9.85	76	Reading poetry is a waste of time, you had better do something useful
.88	7.78	38	People my age who are reading a lot of poetry are a little strange.
1.36	9.53	37	Watching a stage play is a waste of time, you had better do something useful.

r.w.	c.r.	item number	perceived behavioral control (control beliefs and perceived facilitation):
1.00	-	80	I think many works of literature are difficult to understand, often I do not completely understand the story.
2.16	8.61	34	I often forget to read, because there are so many things to do.
1.37	7.89	86	When I read a literary work, I find it difficult to concentrate.
2.19	8.81	33	I do not have time for reading works of literature.

r.w.	c.r.	item number	behavioral intentions:
1.00	-	115	I think it's a good idea to bring a literary book when I know I have to wait , for instance in a waiting room or when I travel by train.
1.15	11.97	14	At times I want to buy a work of adolescent literature from my pocket money.
.97	11.68	85	Before long I want to borrow a work of adolescent literature from the library.
.85	11.11	71	In my spare time I am not going to read a literary work.
.99	11.80	99	If someone asks me to read a literary work so that we can discuss it, I will surely read it.
.77	11.38	16	If someone tells me that he or she likes a literary work very much, I am going to read it too.
.73	10.11	72	When I have read a literary work, I talk about it to my friends.
1.23	14.84	17	I want to read many literary works in the future.
1.13	12.73	98	During my vacation I want to read at least one literary work.

r.w.	c.r.	actual behavior (log file weeks):
1.00	-	week one
.90	9.86	week two
1.31	11.10	week three
1.08	12.08	week four
.98	10.95	week five

r.w.	c.r.	standardized r.w.*	paths between constructs MPB
.68	8.44	.393 / .394	cognition on affect
.36	10.97	.519 / .513	affect on intentions
.43	5.84	.311 / .324	subjective norm on intentions
.34	4.15	.205 / .213	perceived behavioral control on intentions
1.14	7.23	.465 / .412	intentions on behavior
.67	2.07	.164 / .181	perceived behavioral control on behavior

* standardized regression weights are not identical in both groups (cohort one and two), since the variances may differ. Both standardized regression weights, of cohort one and two respectively, are presented.

covariance	c.r.	correlation*	covariances, critical ratio's and correlations
.13	7.78	.698 / .647	cognition with subjective norm
.01	1.71	.085 / .079	cognition with perceived behavioral control
.07	5.67	.481 / .428	subjective norm with perceived behavioral control

* correlations are standardized covariances and thus not identical in both groups (cohort one and two), since the variances may differ. Both correlations, of cohort one and two respectively, are presented.

Table A5: Cohort 1 (N = 336) and cohort 2 (N = 361); standardized regression weights and correlations of the longitudinal two-group model. All regression weights and correlations as stipulated in the MPB, except for the correlations between norm and affect and between control and affect which were added to improve model fit.

	cohort 1			cohort 2		
	grade 7	grade 8	grade 9	grade 9	grade 10	grade 11
standardized regression weights						
cognition on affect	.331***	.297***	.323***	.366***	.399***	.314***
affect on intentions	.327***	.356***	.527***	.444***	.436***	.498***
norm on intentions	.312***	.296***	.204***	.184***	.153***	.103*
control on intentions	.145**	.073	.141***	.145***	.054	.001
intentions on behavior	.218***	.214***	.330***	.292***	.216***	.150**
control on behavior	.140**	.203***	.068	.061	.240***	.210***
Correlations						
cognition with norm	.537***	.427***	.441***	.551***	.448***	.247***
cognition with control	.023	.043	.061*	.067*	.023	.125*
norm with control	.337***	.236***	.287***	.334***	.210***	.165**
norm with affect	.458***	.321***	.329***	.466***	.253***	.269***
control with affect	.557***	.314***	.396***	.495***	.272***	.207***

* = one sided significant at 5% (cr> 1.65)
** = one sided significant at 1% (critical ratio > 2.33)
*** = one sided significant at 0.1% (critical ratio > 3.10)

Table A6: Results of the multivariate general linear model repeated measures analysis. The F-value (F), degrees of freedom (df), significance level (p) and partial eta squared (η^2) of the linear trends as well as the interaction between trends and cohort are given per construct of the MPB. The number of participants is 125 in cohort 1 and 129 in cohort 2, except for 'behavior' with 123 and 124 participants in cohort 1 and 2 respectively.

	trends				Trends*cohort			
Variable	F	df	p	η^2	F	df	p	η^2
cognition	19.43	1.95	.000	.072	3.35	1.95	.037	.013
affect	32.53	1.95	.000	.114	1.33	1.95	.265	.005
subjective norm	19.37	1.97	.000	.071	1.49	1.97	.227	.006
perceived behavioral control	46.47	1.91	.000	.156	5.53	1.91	.005	.021
intention	33.99	1.99	.000	.119	1.418	1.99	.243	.006
behavior (hours of leisure reading per week)	65.57	1.92	.000	.211	1.541	1.92	.216	.006

When the assumption of sphericity is violated, the Huynh-Feldt correction is applied.

Table A7: Means and standard deviations per cohort per grade of participants that participated all three measurement moments. The number of participants is 125 in cohort 1 and 129 in cohort 2, except for 'behavior' with 123 and 124 participants in cohort 1 and 2 respectively.

Variable	cohort 1 grade 7	cohort 1 grade 8	cohort 1 grade 9	cohort 2 grade 9	cohort 2 grade 10	cohort 2 grade 11
cognition	2.98 (.48)	2.90 (.53)	2.85 (.52)	2.86 (.52)	2.77 (.64)	2.58 (.65)
affect	3.90 (.67)	3.72 (.84)	3.49 (.72)	3.55 (.78)	3.38 (.86)	3.27 (.92)
subjective norm	3.53 (.51)	3.46 (.64)	3.26 (.62)	3.32 (.66)	3.23 (.68)	3.15 (.69)
perceived behavioral control	3.77 (.72)	3.59 (.69)	3.28 (.66)	3.54 (.71)	3.25 (.74)	3.22 (.68)
intention	3.74 (.55)	3.56 (.66)	3.41 (.58)	3.48 (.67)	3.36 (.70)	3.26 (.71)
behavior (hours of leisure reading per week)	2.53 (1.96)	1.74 (1.64)	1.31 (1.82)	1.91 (2.16)	.74 (1.33)	.60 (1.67)

Table A8: Reliabilities (Cronbach's alpha) of independent variables and of scores for amount of leisure reading.

Variables	ni	N	alpha
vocabulary size in 1995, cohort 1 = grade 7	20	314	.63
vocabulary size in 1996, cohort 1 = grade 8	40	225	.76
vocabulary size in 1997, cohort 1 = grade 9	40	125	.73
vocabulary size in 1995, cohort 2 = grade 9	20	336	.64
vocabulary size in 1996, cohort 2 = grade 10	40	213	.70
vocabulary size in 1997, cohort 2 = grade 11	40	135	.67
amount of reading fictional texts in spare time in 1995, cohort 1 = grade 7	35	140	.87
amount of reading fictional texts in spare time in 1996, cohort 1 = grade 8	35	80	.89
amount of reading fictional texts in spare time in 1997, cohort 1 = grade 9	35	86	.94
amount of reading fictional texts in spare time in 1995, cohort 2 = grade 9	35	176	.90
amount of reading fictional texts in spare time in 1996, cohort 2 = grade 10	35	89	.86
amount of reading fictional texts in spare time in 1997, cohort 2 = grade 11	35	97	.96
cultural level of the home environment, grade 7, cohort 1	7	330	.72
cultural level of the home environment, grade 9, cohort 2	7	356	.78
the motivation to achieve in school, grade 7, cohort 1	5	330	.71
the motivation to achieve in school, grade 9, cohort 2	5	356	.73
the amount of parental support for school work, grade 7, cohort 1	6	330	.58
the amount of parental support for school work, grade 9, cohort 2	6	356	.65
amount of text experiencing in literary education in grade 7, cohort 1	8	330	.88
amount of structural analysis in literary education in grade 7, cohort 1	25	330	.92
amount of literary history in literary education in grade 7, cohort 1	22	330	.92
amount of text experiencing in literary education in grade 8, cohort 1	8	188	.78
amount of structural analysis in literary education in grade 8, cohort 1	26	188	.94
amount of literary history in literary education in grade 8, cohort 1	22	188	.94
amount of text experiencing in literary education in grade 9, cohort 1	8	129	.71
amount of structural analysis in literary education in grade 9, cohort 1	26	129	.89
amount of literary history in literary education in grade 9, cohort 1	22	129	.95
amount of text experiencing in literary education in grade 9, cohort 2	8	356	.83
amount of structural analysis in literary education in grade 9, cohort 2	25	356	.91
amount of literary history in literary education in grade 9, cohort 2	22	356	.92
amount of text experiencing in literary education in grade 10, cohort 2	8	211	.74
amount of structural analysis in literary education in grade 10, cohort 2	26	211	.92
amount of literary history in literary education in grade 10, cohort 2	22	211	.93
amount of text experiencing in literary education in grade 11, cohort 2	8	131	.74
amount of structural analysis in literary education in grade 11, cohort 2	26	131	.91
amount of literary history in literary education in grade 11, cohort 2	22	131	.95

Table A9: Percentages of explained variance by the variable 'gender' (1 = boy; 2 = girl) in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 126-220; N cohort 2 = 129-244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition		3.4**	3.4*	2.1**		6.5**
affect				1.4*	3.0**	5.7**
subjective norm				2.1**	8.5**	8.8**
perceived behavioral control						
intentions	1.8*		3.1*	.08*	1.8*	3.0**
reading behavior	3.3**					

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.
* = significance level <.05; ** = significance level < .01.

Table A10: Percentages of explained variance by the variables 'educational level of the father' and 'educational level of the mother' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 114-208; N cohort 2 = 116-236).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition	5.2** (father) 5.2** (mother)					
affect						
subjective norm						
perceived be-havioral control						
intentions	1.9* (mother)		7.6** (mother)			
reading behav-ior						

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.
* = significance level <.05; ** = significance level < .01.

Table A11: Percentages of explained variance by the variable 'cultural level of the home environment' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 123-220; N cohort 2 = 124 - 244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition	2.1**		2.7*			
affect						
subjective norm	1.0*	3.3**	2.8*		3.7**	2.3*
perceived behavioral control						
intentions	1.6*	1.5*	3.5**			
reading behavior				3.6**		

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.
* = significance level <.05; ** = significance level < .01.

Table A12: Percentages of explained variance by the variable 'amount of parental support for school work' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 123-220 ; N cohort 2 = 124-244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition		2.4*	1.8*			
affect						
subjective norm		2.0*				
perceived behavioral control						
intentions						
reading behavior						

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.
* = significance level <.05; ** = significance level < .01.

Table A13: Percentages of explained variance by the variable 'motivation to achieve in school' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 123-220; N cohort 2 = 124 -244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition						-2.4*
affect			-2.8*			-1.7*
subjective norm						
perceived behavioral control						
intentions			-1.8*			-2.0*
reading behavior						

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.
* = significance level <.05; ** = significance level < .01.

Table A14: Percentages of explained variance by the variable 'vocabulary size'[1] in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 91-202; N cohort 2 = 97-225).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition	3.7** (8)					
affect	5.3** (8)					
subjective norm	2.0* (8)	2.0* (7)			5.8** (9)	
perceived behavioral control	4.6** (8)					
intentions	5.2** (8)	2.7* (9)	3.3* (8) 4.1* (9)			3.2* (11)
reading behavior	0.6** (7) 3.6** (8)	3.7** (7) 4.5* (8) 3.5* (9)	7.2** (7) 7.5** (8) 9.6** (9)			

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.

1 Vocabulary size was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

* = significance level <.05; ** = significance level < .01.

Table A15: Percentages of explained variance by the variable ' number of lessons in literary education per week per grade'[1] in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 115-220; N cohort 2 = 112-244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition						
affect	3.0** (8)				1.3* (11)	2.3* (11)
subjective norm	2.4* (8)		-2.6* (7)		2.4* (11)	
perceived behavioral control						
intentions	3.4** (8)					
reading behavior						

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.

* = significance level <.05; ** = significance level < .01.

1 The number of lessons in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A16: Percentages of explained variance by the variable 'amount of text experiencing in literary education per week per grade' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 116-220; N cohort 2 = 112-244).

	Grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition					1.8* (9) 2.1* (11)	2.5* (11)
affect	2.6** (8)				3.9*** (11)	5.7*** (11)
subjective norm			2.3* (9)	-1.4* (9)	2.4* (9) 2.8** (10) 8.8*** (11)	4.2** (10) 2.7* (11)
perceived behavioral control						
intentions	3.6** (8)				1.5* (11)	3.0** (11)
reading behavior					3.8* (11)	2.2* (11)

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.

* = significance level <.05; ** = significance level < .01; *** = significance level < .001.

1 The amount of text experiencing in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A17: Percentages of explained variance by the variable 'amount of structural analysis in literary education per week per grade' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 116-220; N cohort 2 = 112-244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
cognition					1.5* (11)	
affect		2.3* (8)	4.3** (8)		3.1** (11)	2.8*(11)
subjective norm					2.6* (10) 7.2*** (11)	3.5** (11)
perceived behavioral control					1.8* (10)	2.5* (11)
intentions						
reading behavior					4.1** (9)	

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.

* = significance level <.05; ** = significance level < .01.

1 The amount of structural analysis in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A18: Percentages of explained variance by the variable 'amount of literary history in literary education per week per grade' in changes in attitude scores between grades. Percentages are given only when the effect is significant. (N cohort 1 = 116-220; N cohort 2 = 112-244).

	grade 7-8	grade 8-9	grade 7-9	grade 9-10	grade 10-11	grade 9-11
Cognition						
Affect						3.0* (11)
subjective norm					2.9** (10)	
					2.1* (11)	
perceived behavioral control					2.4* (10)	2.7* (11)
Intentions					1.9* (11)	
reading behavior					2.3* (9)	

If the regression weight is negative, the percentage of explained variance is preceded by a minus sign '- '.

* = significance level <.05; ** = significance level < .01.

1 The amount of literary history in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A19: LRQ, longitudinal study.The original items of the LRQ in English, the factor loadings (est), critical ratios (c.r.) and standardized factor loadings of the first measurement moment (st. est.) based on the confirmatory factor analysis of the three group model of cohort 1 and 2 together (cfa). Sample sizes per measurement moment are respectively 691, 448 and 259. In the Dutch translation of the instrument some phrases are simplified and some complicated notions are explained, since the original LRQ was intended for university students. For model identification one item factor loading per latent variable was fixed at a value of one. This means that for these items no critical ratio could be computed. The one sided significance levels for the critical ratios: p< .006 if c.r. > 2.52; p< .001 if c.r. > 3.10; p< .0001 if c.r. > 3.80.

est	c.r.	st. est	Leisure Escape
1.389	14.815	.580	3. Reading literature is a pleasurable way to spend time when I have nothing else to do
1.534	15.066	.601	17. Very often I cannot put down a story until I have finished reading it
1.592	15.345	.634	18. I find that reading literature is a great help in taking my mind off my own problems
1.502	14.482	.539	26. When I have spare time my favorite activity is reading a novel
1.626	15.517	.643	29. I am often so involved in what I am reading that I am no longer aware of myself
1.505	15.740	.668	35. Reading a story is a wonderful way to relax
1.000		.431	39. Once I've discovered one work by an author I like, I usually try to read all the other works by that author
1.762	16.031	.706	43. Sometimes I like to curl up with a good book just to enjoy myself
1.564	15.397	.646	45. While reading I completely forget what time it is
1.632	15.629	.662	49. I like to become so absorbed in the world of the literary text that I forget my everyday concerns
1.370	14.004	.530	59. I often wish I had more time for reading literature

est	c.r.	st. est	Story-Driven Reading
1.000		.279	2. The type of literature I like best tells an interesting story
1.511	8.754	.425	19. When reading a novel my main interest is seeing what happens to the characters
1.965	9.483	.540	40. When reading a novel, what I most want to know is how the story turns out
1.436	8.189	.339	60. I find it difficult to read a novel in which nothing much seems to happen
1.492	8.497	.362	62. I like it best when a story has an unexpected ending
1.940	9.655	.593	65. I like to see tension building up in the plot of a story
.961	6.426	.228	68. I think the most important part of fiction or drama is plot
1.307	7.793	.309	77. I prefer to read fiction in which there is plenty of action

est	c.r.	st. est	Insight
1.000		.609	6. I find that certain literary works help me to understand my more negative feelings
.880	20.316	.597	8. Literature enables you to understand people that you'd probably disregard in normal life
.684	17.009	.478	13. I often find my shortcomings explored through characters in literary texts
1.023	21.708	.645	16. I find that literature helps me to understand the lives of people that differ from myself
.257	6.903	.196	23. Literature often gives special emphasis to those things that make a moral point
.989	22.058	.658	31. Reading literature makes me sensitive to aspects of my life that I usually ignore
1.058	23.148	.720	32. In my reading, I learn to recognize more readily certain types of people or events, i.e., I can see these types more clearly after reading about a particular example in a literary text
.863	19.194	.562	33. I sometimes find that reading a literary text makes me feel like changing the way I live
.833	19.273	.566	34. I often find my own motives being explored through characters in literary texts
1.052	23.658	.732	41. Reading literature often gives me insights into the nature of people and events in my world
.897	20.769	.617	54. I often see similarities between events in literature and events in my own life
.598	14.730	.412	69. Sometimes while reading literature my feelings draw me toward a distinctly unsettling view of life
1.044	22.663	.702	80. In literature I sometimes recognize feelings that I have overlooked during my daily life
.793	19.679	.597	81. When I begin to understand a literary text, it's because I've been able to relate it to my own concerns about life

est	c.r.	st. est	Empathy
1.000		.657	5. Sometimes I feel like I've almost "become" a character I've read about in fiction
.595	13.566	.386	12. I sometimes wonder whether I have really experienced something or whether I have read about it in a book
.952	21.928	.654	37. I actively try to project myself into the role of fictional characters, almost as if I were preparing to act in a play
.827	20.745	.626	52. Sometimes characters in novels almost become like real people in my life
1.068	24.166	.746	75. When I read fiction I often think about myself as one of the people in the story
.709	18.983	.562	78. After reading a novel or story that I enjoyed, I continue to wonder about the characters almost as though they were real people
.885	20.284	.606	82. I sometimes have imaginary dialogues with people in fiction

est	c.r.	st. est	Concern with Author
1.057	17.740	.550	4. I am often intrigued by an author's literary technique
1.032	17.962	.535	11. In reading I like to focus on what is distinctive about the author's style.
.970	17.909	.534	15. One of my primary interests in reading is to learn about the different genres of literature.
.949	18.719	.546	20. I like to see how a particular author's work relates to other literature of the author's period
.896	16.382	.504	22. When I find a work of literature I like, I usually try to find out something about the author
.956	18.586	.573	44. One of my primary interests in reading literature is to learn about the themes and concerns of a given author
1.040	19.512	.606	36. One of my primary interests in reading literature is to appreciate the author's understanding of society and culture
.833	15.531	.470	25. When reading I usually try to identify an author's distinctive themes
1.000		.639	63. The challenge of literature is to comprehend the author's unique view of life
.669	12.584	.380	74. I think literature is especially interesting when it illuminates facts about the author's life

est	c.r.	st. est	Imagery Vividness
.771	20.423	.564	1. Sometimes a scene from a story or poem is so clear that I know its smell, its touch, its "feel"
.748	20.018	.561	9. When I read a literary text, a scene that is only partly described often becomes a whole, vividly present place in my mind
.847	19.372	.521	14. I sometimes think I could draw a map of the places I have read about in a work of fiction
.922	22.410	.590	24. I often hear dialogue in a novel as though I were listening to an actual conversation
.507	14.728	.405	28. Often when I read literary texts, descriptions of smells suggest colors, descriptions of colors suggest feelings, and so on
.995	28.169	.791	47. When reading a story, sometimes I can almost feel what it would be like to be there
.788	24.536	.688	48. I can readily visualize the persons and places described in a novel or short story
.935	23.547	.622	56. I usually hear the tone of speech in a dialogue from a story or novel
1.000		.690	71. I often see the places in stories I read as clearly as if I were looking at a picture

est	c.r.	st. est	Rejecting of Literary Values
1.000		.430	7. I think people should spend less time talking or writing about literature
.460	6.106	.198	10. Works of literature often seem to make the issues of life more complicated than they actually are
.988	10.667	.414	21. I disliked English in high school because most of the texts I was asked to read I would not have chosen myself
1.309	11.669	.472	50. If I want to spend time reading I don't choose "literary" texts
1.072	11.398	.469	55. I don't believe that literature is socially relevant
1.159	10.933	.435	57. Reading literary texts from past centuries should be left to literary scholars and historians
1.348	12.753	.610	61. Even if literature were well taught, I think high schools should not devote so much time to it
.950	10.252	.396	66. One of the things I dislike most about being a student of literature is the teacher who tells you what a literary text means
.710	8.179	.288	72. For me a work of literature is destroyed by trying to analyze it

Unstandardized and standardized factor loadings of the first-order factors on the second-order factors. The covariance between Trance and Literary Interpretation is .153 with a critical ratio of 11.538 (which corresponds with a correlation of .745).

Factors	Trance (unstand.)	Literary Interpretation (unstand.)	Trance (stand.)	Literary Interpretation (stand.)
Leisure escape	1.000		.824	
Story driven reading	.357 (7.652)		.500	
Insight		1.000		.917
Empathy	1.965 (13.919)		.864	
Concern with author		.577 (13.516)		.611
Imagery vividness	1.919 (14.485)		.930	
Rejecting literary values		.315* (9.598)		.467*

* Rejection scores are reverse scored; high scores indicating less rejection of literary values and low scores indicating more rejection of literary values. Therefore these regression weights are positive.

Table A20: The significance levels of the differences between mean response scores at the three measurement moments. Included in the analyses are participants who filled out the LRQ at all three measurement moments. C = cohort, N cohort 1 = 124; N cohort 2 = 129.

C	factor	sig. sph.	Wilk's λ	sig. λ	sig. dif 1-2*	sig dif. 12-3*	sig. linear	sig. quad.
1	leisure	.786	.768	.000	.000	.000	.000	.405
2	leisure	.008	.623	.000	.000	.000	.000	.000
1	story	.072	.937	.019	.876	.005	.023	.210
2	story	.075	.949	.036	.023	.110	.021	.254
1	empathy	.593	.883	.001	.007	.002	.000	.395
2	empathy	.006	.813	.000	.008	.000	.000	.927
1	vividness	.185	.939	.021	.021	.058	.008	.214
2	vividness	.381	.852	.000	.001	.000	.000	.232
1	insight	.902	.930	.012	.010	.132	.010	.146
2	insight	.010	.794	.000	.000	.000	.000	.119
1	author	.070	.762	.000	.000	.000	.000	.131
2	author	.018	.902	.001	.075	.000	.000	.717
1	rejection	.197	.848	.000	.365	.000	.000	.167
2	rejection	.050	.993	.620	.330	.964	.586	.362
1	trance	.142	.827	.000	.004	.000	.000	.524
2	trance	.043	.718	.000	.000	.000	.000	.066
1	lit. int.	.100	.773	.000	.000	.000	.000	.360
2	lit. int.	.002	.860	.000	.002	.000	.000	.291

* The column 'sig. sph' indicates the significance level of the test of the assumption of sphericity; 'sig. λ' gives the significance of differences between grades; 'sig. dif 1-2' gives the significance levels of the differences between the means of measurement moment 1 and 2. So for cohort 1 this is the difference between the means of grades 7

Table A21: The means per factor per grade per cohort. Included in the analyses are participants who filled out the LRQ at all three measurement moments. Rejection scores are reverse scored; high scores indicating less rejection of literary values and low scores indicating more rejection of literary values.

	cohort 1, N = 124			cohort 2, N = 129		
factor	grade 7	grade 8	grade 9	grade 9	grade 10	grade 11
leisure	3.90	3.69	3.56	3.66	3.32	3.24
story	3.79	3.78	3.66	3.81	3.72	3.71
empathy	3.46	3.28	3.20	3.11	2.94	2.75
vividness	3.80	3.66	3.64	3.69	3.50	3.42
insight	3.10	2.96	2.96	2.98	2.77	2.67
author	2.76	2.54	2.44	2.49	2.41	2.30
rejection	3.31	3.26	3.11	3.20	3.16	3.17
trance	3.74	3.60	3.52	3.57	3.37	3.28
lit. int.	3.05	2.92	2.84	2.89	2.78	2.71

Table A22: Percentages of explained variance by gender in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure	6.7			2.7		3.4
story					2.7	3.8
empathy	1.6			4.3		4.4
vividness	2.7		2.4	1.9	3.5	5.5
insight		4.2	4.8	2.3	2.6	6.2
author					1.3	2.5
rejection					3.0	6.1
trance	4.9			4.1	2.2	8.0
lit. int.				1.2	2.8	5.9

* Calculated by taking the square of the regression weight.

Table A23: Percentages of explained variance by vocabulary size per grade** in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure		7.7 (7) 9.0* (9)	6.3* (9)		2.2* (11)	
story		5.2* (8)				
empathy		3.2* (9)				
vividness	2.1* (8)	3.2* (9)				
insight						
author						
rejection					2.5 (9)	
trance		7.4* (9)	3.5* (9)			
lit. int.						

* Calculated by taking the square of the regression weight.

** Vocabulary size was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A24: Percentages of explained variance by amount of leisure reading per week per grade** in changes in response scores between grades. Percentages are given only when the effect is significant. Negative regression weights are indicated by a '-' in front of the percentage.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure	5.3* (8)	9.6* (9)	10.9* (9)	5.3* (10)		11.4* (10) 3.5* (11)
story			-6.9* (9)	4.5* (10)		
empathy		4.0* (9)			7.5* (10)	7.9* (10)
vividness	3.0* (7)			3.5* (10)	6.8* (10)	12.5* (10)
insight						
author						
rejection					3.6* (11)	8.2* (10)
trance		3.9* (9)		5.3* (10)	7.7* (10)	16.6* (10)
lit. int.			3.7* (9)			5.1* (10)

* Calculated by taking the square of the regression weight.

** Amount of leisure reading was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A25: Percentages of explained variance by the educational level of the mother and father (indicated by 'm' or 'f') in changes in response scores between grades. Percentages are given only when the effect is significant. Negative regression weights are indicated by a '-' in front of the percentage.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure						
story						
empathy						-1.8 (m)
vividness						
insight						
author	1.9 (m)			-1.1 (f)		
rejection						
trance						
lit. int.	1.7* (m)					

* Calculated by taking the square of the regression weight.

Table A26: Percentages of explained variance by cultural level of the home environment in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure				1.1	1.4	2.8
story						
empathy						
vividness						
insight	1.4					
author		2.8	2.6			
rejection		4.6	6.8		1.8	
trance						
lit. int.						

* Calculated by taking the square of the regression weight.

Table A27: Percentages of explained variance by motivation to achieve in school in changes in response scores between grades. Percentages are given only when the effect is significant. Negative regression weights are indicated by a '-' in front of the percentage.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure						
story						
empathy						
vividness						
insight		-2.0				
author		-3.8	-4.0		-1.2	
rejection						
trance						
lit. int.		-3.1	-2.1		-1.4	

* Calculated by taking the square of the regression weight.

Table A28: Percentages of explained variance by number of lessons in literary education per week per grade in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure	-2.6 (7)		5.7 (8)			
story						
empathy		2.8 (7)				
vividness		1.5 (8)	2.0 (8)			
insight					-1.8 (9)	
author			2.0 (8)			
rejection	-1.3 (7)					
trance			2.7 (8)			
lit. int.						

* Calculated by taking the square of the regression weight.
** Number of lessons in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A29: Percentages of explained variance by amount of text experiencing in literary education per grade** in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure					7.3 (11)	5.6 (11)
story				5.0 (10)		
empathy	2.2* (8)					
vividness	5.7* (8)	1.0 (8)	3.5 (7)		1.8 (11)	
			4.8 (8)			
insight	1.6* (8)				2.1 (11)	
author	1.5 (8)				2.3 (11)	
rejection					4.5 (11)	5.9 (11)
trance	3.7* (8)		2.6 (8)	4.7 (10)	3.8 (11)	3.0 (11)
lit. int.	2.3* (8)				3.6 (11)	3.2 (11)

* Calculated by taking the square of the regression weight.
** Amount of text experiencing in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A30: Percentages of explained variance by amount of structural analysis in literary education per grade** in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
Leisure					4.4 (11)	
Story				3.6 (10)		
Empathy				-1.4 (9)		
Vividness		1.6 (8)	1.2 (8)	-.1 (9)	2.2 (11)	
Insight				1.1 (10)	2.1 (11)	
Author				-2.8 (10)	2.1 (11)	1.9 (11)
Rejection		-1.8 (9)	-2.6 (9)		3.0 (9)	4.4 (11)
					4.5 (11)	
trance				-1.2 (9)	3.1 (11)	
lit. int.				-1.6 (9)	1.9 (9)	3.0 (11)
					3.5 (11)	

* Calculated by taking the square of the regression weight.
** Amount of structural analysis in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

Table A31: Percentages of explained variance by amount of literary history in literary education per grade** in changes in response scores between grades. Percentages are given only when the effect is significant.

	grades 7-8	grades 8-9	grades 7-9	grades 9-10	grades 10-11	grades 9-11
leisure					5.0 (11)	3.0 (11)
story						-4.0 (9)
empathy						
vividness	2.1* (7)					
insight						
author			3.6 (9)	5.0 (10)		
rejection					3.5 (11)	4.9 (11)
trance					2.3 (11)	
lit. int.						

* Calculated by taking the square of the regression weight.
** Amount of literary history in literary education was measured at each measurement moment, that is, in each grade. Between brackets the grade concerned is indicated.

INSTRUMENTS

TRANSLATION OF ONE DAY OF THE LOG FILE

Week xx
Monday morning ..... till Sunday evening .....
Log file of ...
NAME and SCHOOL

This is your log file.
Please give honest answers to the questions.

Even though your name is on this log file, all answers will be treated anonymously. This means that no one will know your answers. We only need your name to match the different questionnaires that are filled out by one student. After linking the answers from different logs and questionnaires, all names will be removed.
Starting from Tuesday morning you have to answer the questions concerning the day before. You can answer the questions about Friday, Saturday and Sunday on Monday morning. If you have answered all the questions, you can give this log to your teacher of Dutch.

Thanks a lot for your cooperation

Fill out Tuesday morning April the xxth

Indicate what you did on Monday and how many minutes you did it.

Monday I have ...	if so, cross out	and note number of minutes
read one or more comic books		
made homework for school (not reading books for the required reading lists for school)		
watched the television or video		
made music		
read newspapers or magazines (not comics)		
done sport		
listened to music (not on television, but through radio, compact disc, cassette or record player)		
read for one of the required reading lists for one or more of the subjects German, French, English, Spanish or Russian		
read for the required reading lists for Dutch		

Answer the following questions by crossing out your answer	yes	no
Monday I went to the theater and saw a play.		
Monday I went to the library and borrowed or returned a book.		
Monday I went to the cinema and saw a movie.		
Monday I read one or more poems.		

Answer the next questions only if you read (adolescent) literature on Monday as a leisure activity (not books for school)

Fill out the names of the book(s) you read for yourself (not for school or for your required book list, but as a leisure activity). Also mark the name of the writer as well as the number of pages that you read and how many minutes you spent reading this book or these books.

Name book	name writer	number of minutes	number of pages

Cultural level of the home environment:

*) How often do your parents talk with you about books, for instance about what stories they like?
(never; seldom; sometimes; often; very often)
*) How often does your father read a literary book (an invented literary story or collection of poems, not a book for study, a newspaper, a detective, a novelette, and the like) (never; seldom; sometimes; often; very often)
*) How often does your mother read a literary book (an invented literary story or collection of poems, not a book for study, a newspaper, a detective, a novelette, and the like) (never; seldom; sometimes; often; very often)

- How often does your father or mother go to a theater to watch a play? (never; seldom; sometimes; often; very often)
- How often do you talk with your parents about a play they have seen? (never; seldom; sometimes; often; very often)
- How often do you visit a museum? (never; seldom; sometimes; often; very often)
- How many literary books do you have at home (one meter on a bookshelf contains about 50 books)? (Try to estimate the number of literary books, not all books.) (none; between 1 and 10; between 10-50; between 50 and 100; more than 100)

The motivation to achieve in school

- How important is it to your parents that you get good grades in school? (not important; slightly important; important; very important)
- How important is it to your parents that you perform well in school? (not important; slightly important; important; very important)
- How important is it to you to do well in school?
- How important is it to your parents that you go on studying after secondary education (go to college)?
- How important is it to you to go on studying after secondary education (go to college)?

Parental support for school work

*) How important is it to your parents that you speak Dutch correctly? (not important; slightly important; important; very important)
*) How often do your parents help you with your homework? [(almost) every day, a few times a week, a few times a month, a few times a year, hardly ever or not at all]
*) How often do your parents ask you how your day was in school?
*) How often do your parents correct you if you mispronounce or misuse a word?
*) How often do your parents correct spelling errors that you make, for instance in a note you wrote?
- How often does anyone in your family look up an unknown word in a dictionary (for instance a word in the newspaper or on television)

PARENTAL LEVEL OF EDUCATION

1) Did your father study at a university? [I don't know, yes, no]
If so, do you know what subject? (Fill out)

If your father studied at a university, skip questions 1b to 1f and continue with question 2.

1b) If not, did your father complete professional education (for instance School for Business Administration and Economics, Secondary Teacher Training, Teachers' Training College, Training as a nurse, Military Academy, Technical College, and the like)? [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 2.
1c) If not, did your father complete an Intermediate Vocational Education (Intermediate Technical School, MHNO, MDGO, MTS, and the like)? [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 2.
1d) If not, did your father complete a Lower Vocational Education? (Junior Technical School, LHNO, LDGO, and the like) [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 2.
1e) If not, did your father complete secondary education? [yes, no, I don't know]
If so, do you know what kind? (Fill out)

If your answer is 'yes', go to question 2.

1f) What is your father's profession? (Fill out)

2) Did your mother study at a university? [I don't know, yes, no]
If so, do you know what subject? (Fill out)

If your mother studied at a university, skip questions 1b to 1f and continue with question 3.

2b) If not, did your mother complete professional education (for instance School for Business Administration and Economics, Secondary Teacher Training, Teachers' Training College, Training as a nurse, Military Academy, Technical College, and the like)? [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 3.

1c) If not, did your mother complete Intermediate Vocational Education (Intermediate Technical School, MHNO, MDGO, MTS, and the like)? [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 3.
1d) If not, did your mother complete Lower Vocational Education? (Junior Technical School, LHNO, LDGO, and the like) [yes, no, I don't know]
If so, do you know what? (Fill out)

If your answer is 'yes', go to question 3.
1e) If not, did your mother complete secondary education? [yes, no, I don't know]
If so, do you know what kind? (Fill out)

If your answer is 'yes', go to question 3.

1f) What is your mothers profession? (Fill out)

Kind of literary education

Answers are: (seldom or never; a few times a year; about once a month; about once every two weeks; almost every week or more often)
text experiencing 1995 (extra in 1996 in italics)
In the literary education lessons, how often do you ...
- *read a literary story you like*
49 - read a literary story in class for yourself
50 - read a poem in class for yourself
51 - listen to a story read aloud
52 - listen to a poem read aloud
56 - give your own interpretation of a (literary) story (what it is about, what the writer means, etc.)
57 - give your own interpretation of a poem
58 - say whether you like a fictional story or poem and why, in short, give your own opinion.
59 - give your own personal reaction to a fictional story or poem (for instance 'I like it', ' think it is dull, scary, exciting, stupid, etc.)

structural analysis 1995

In the literary education lessons, how often do you ...
67 - make an analysis of the structure of a literary work (describing time and space, perspective, theme's, motives, etc.)
70 - recognize features of a literary work that are characteristic of a literary movement
73 - analyze a story or poem (the structure, time, perspective etc)
74 - compare the structures of different literary works

78 - study formal features of a literary story or poem like style, use of language, perspective etc.

Indicate how often the following subjects come up in your literary education lessons (Since this questionnaire is used in all grades, some subjects may be unknown to you. Just skip the subject if you do not know what it means.)
- prosody
- themes
- suspense
- space
- focus
- main theme versus sub themes
- time
- metre
- structural analysis
- rhyme scheme
- perspective
- the structure of a literary work
- expectation horizon
- implicit reader
- topos
- fable
- sujet
- cyclic story
- quest
- flash back

literary history

- learning historical dates (when authors lived, when a certain literary movement took place)
- learning facts about the lives of writers
- learning features of literary works of a certain literary movement
- making connections between the history of a certain time and literary works from that period
- making connections between a literary work and the culture of the writer (for instance if the writer comes from a foreign country or if the writer has a certain religion)
- study the literary background of a story, for instance facts about the author, the literary movement or the reactions of literary critics to the story
- study the non-literary background of a story, for instance the social or political circumstances in which the story was written
- *relating different works of adolescent literature*
- relating different literary stories (literary movements, genres)
- when something was written

- which writers lived in a certain period
- how writers lived, with whom they were married, etc
- when a certain literary movement took place
- features of literary movements
- medieval literature
- renaissance literature
- rhetoric
- classicism
- sentimentalism
- romanticism
- realism or naturalism
- modernism
- the social and political background of a literary work (how things were at that time, how people worked, lived, what laws there were, what governments, kings, wars etc., and how we find the influence of these aspects in the work of fiction)

Vocabulary test
translated from Dutch (In 1995 only the first 20 items were administered.)
Give the meaning of the underlined word or words.
What he said was impudent.
1 - strong
2 - totally wrong
3 - not nice
4 - dishonest

Scarcely
1 - stream
2 - medicine
3 - fruit
4 - barely
5 - tidy

Martin and Resi spy on the birds
1 - free the birds
2 - try to catch the birds
3 - lure the birds
4 - observe the birds

They have united themselves
1 - defended themselves
2 - argued
3 - joined forces
4 - fun

Shabby
1 - mess
2 - camel
3 - connection
4 - poor
5 - clothes

The candles are smoldering
1 - burning slowly
2 - smoking
3 - melting
4 - dripping

Abrupt
1 - heavy
2 - apart
3 - sudden
4 - vain
5 - insufficient

Anke and Jan inspire us
1 - make a fool of us
2 - are boring us
3 - give us new ideas
4 - are betraying us

Meagre
1 - narrow
2 - penniless
3 - cold
4 - small
5 - scant

Audacious
1 - ruler
2 - measured
3 - rash
4 - weak
5 - accurate

They had enough provisions
1 - money
2 - victuals
3 - clothes
4 - checks

Slur
1 - blot
2 - bush
3 - follicle
4 - gossip
5 - fruit

That is a topical problem
1 - superseded problem
2 - imaginary problem
3 - problem of current interest
4 - solvable problem

Frank
1 - taking care of
2 - straightforward
3 - fast
4 - daring
5 - nerve

He isolates himself
1 - is showing off
2 - cuts himself off
3 - thinks he is better than others
4 - takes good care of himself

Renowned
1 - famous
2 - worthy
3 - known
4 - nice
5 - polite

Fragile
1 - vessel
2 - lily
3 - watercourse
4 - delicate
5 - light

I find it comfortable
1 - pleasant
2 - sad
3 - modern
4 - easy

Husk
1 - round
2 - planet
3 - hull
4 - goodness
5 - drudge

Nestor
1 - master
2 - reverend
3 - insect
4 - lord
5 - oldest

She is an autodidact
1 - a woman that is self-educated
2 - a woman who does chores herself
3 - a woman who finished her education
4 - a woman who knows a lot about cars

Italic
1 - narrow
2 - cursive
3 - heavy
4 - intermediate
5 - readable

They had an animated conversation
1 - a dubious
2 - an unsociable
3 - a confidential
4 - a cheerful

Negligible
1 - subtracted
2 - loss
3 - difference
4 - facial expression
5 - slight

Annette is an ambitious student
1 - a creative
2 - a sensible
3 - an aspiring
4 - an industrious

Bombast
1 - disguise
2 - shell
3 - grenade
4 - fustian
5 - sort of tree

The purport of that story is clear to me
1 - sequel
2 - ending
3 - intent
4 - content

Pendant
1 - counterpart
2 - clock
3 - smarty
4 - great
5 - conceited

What a catastrophe
1 - story
2 - situation
3 - disappointment
4 - disaster

That will precipitate the affair
1 - make the affair go faster
2 - slow the affair down
3 - spoil the affair
4 - make the affair go better

Concise
1 - compact
2 - supervised
3 - tenacious
4 - summary
5 - with attention

Frugal
1 - polyphonic
2 - hampered
3 - austere
4 - brittle
5 - clear

They were at feud with each other
1 - at war
2 - in peace
3 - friends
4 - enemies

She wanted to become a pharmacist
1 - a psychiatrist
2 - a druggist
3 - an agriculturist
4 - a chemist

Frenetic
1 - powerful
2 - shy
3 - bodily
4 - spiritual
5 - frantic

That is a provocation
1 - an enumeration
2 - a proposal
3 - an exclamation
4 - an inducement

Diligence
1 - poor
2 - strong
3 - industry
4 - rich
5 - tired

You do have to dose well
1 - to pack up well
2 - to clean thoroughly
3 - to tidy thoroughly
4 - to give the right quantity

Topography is her hobby
1 - Description of places
2 - Descriptive botany
3 - Genealogical research
4 - Pathology

Quick
1 - water
2 - fast
3 - round
4 - eel
5 - hurry