THE CONDITIONS OF FLOW IN READING: TWO STUDIES OF OPTIMAL EXPERIENCE

JEFF MCQUILLAN, *University of Southern California*

GISELA CONDE, *Florida International University*

Abstract

This paper examines the conditions under which readers experience intense engagement in a text, what Csikszentmihalyi has termed "optimal experience," or "flow."[1] Two studies of optimal experience are reported here. The first consisted of interviews with eleven children and adult pleasure readers concerning their experiences with flow during reading; the second examined reading flow by surveying 76 university students and professionals. Among the major findings of the studies were: (a) the large majority of the texts which provided the informants with flow were those which they had read for pleasure; (b) when informants were assigned texts in school, flow was more likely to occur when they had an interest in the text; (c) texts which provided flow were perceived as giving the reader personal or intellectual benefits; and (d) fiction was significantly more likely to produce flow than non-fiction texts. Future research directions are discussed.

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Introduction

Csikszentmihalyi (1975) has given the term "optimal experience" or "flow" to describe intense engagement or complete absorption in a task. Numerous studies on flow and its benefits have been conducted in a variety of contexts and with a number of cultural groups, confirming that the phenomenon is widespread. Activities as diverse as rock climbing, ocean cruising, motorcycling, and factory work has been reported as producing flow, but the most common optimal experience noted in the research is reading (Massimini, Csikszentmihalyi, & Delle Fave, 1988). In this paper, we will describe Csikszentmihalyi's flow model and investigate the conditions under which people experience flow during reading by examining two studies of adult and child readers. In the first study, eleven subjects, representing a diverse group of children and adults, were interviewed about their reading flow experiences. In the second, 76 university students and professionals were surveyed on their reading flow, confirming and expanding the findings of the first study. The role of self-selection and the possible connections between optimal experience and language acquisition will also be discussed, as well as the implications of flow research in classroom reading instruction.

The Flow Model

Csikszentmihalyi and Csikszentmihalyi (1988) have attempted to investigate the conditions under which people feel most fulfilled in their professional and personal lives. They note that this fulfillment seems to reach its peak under certain special conditions of intense engagement in an activity, what they terms "optimal experience"

Several studies on subjects from a variety of cultures and under varying circumstances support the notion that there are some universal qualities to these experiences. Csikszentmihalyi (1990) has identified at least six characteristics of flow. First, a person's skill in a given activity must meet the challenge; the two must be in balance. Second, the activity must have relatively clear goals and feedback as to the doer's performance. Third, the optimal experience requires a focused concentration such that one's attention is totally devoted to the activity. This "merging of activity and awareness" in turn causes one to lose sight of the worries and concerns of daily life. Fourth, the doer feels that the outcomes of the activity are in some sense under one's own control. Fifth, the doer loses a sense of time while in flow, such that "hours seem to pass by in minutes, and occasionally a few seconds stretch out into what seems to be an infinity" (p. 33). Sixth, the person in flow temporarily loses awareness of self. Using Mead's terminology (1934), Csikszentmihalyi and Csikszentmihalyi (1988) state that

> the "me" disappears during flow, and the "I" takes over...(T)he self is fully functioning, but not aware of itself doing it, and it can use all the attention for the task at hand. At the most challenging levels, people actually report experiencing a transcendence of self, caused by the unusually high involvement with a system of action so much more complex than what one usually encounters in everyday life (emphasis in the original, p. 33).

Csikszentmihalyi and Csikszentmihalyi describe flow experiences as taking place in all socioeconomic and cultural settings in various types

of activities. They points out that merely having a balance between challenge and skill will not always produce flow; the other conditions must also be met.

Perhaps the best definitions of flow come from the descriptions subjects themselves used in some of the studies done on the phenomenon. Here are three such descriptions, taken from a rock climber, a composer, and a dancer, respectively (Han, 1988):

> My mind wasn't wandering. I was not thinking of something else. I was totally involved in what I am doing. My body felt good. I didn't seem to hear anything. The world seemed to be cut off from me. I was less aware of myself and my problems.

> My concentration was like breathing. I never thought of it. I was really quite oblivious to my surroundings after I really got going. I thought that the phone could ring, and the doorbell could ring, or the house burn down or something like that. When I started, I really did shut out the whole world. Once I stopped, I could let it back in again.

> I was so involved in what I am doing. I didn't see myself as separate from what I was doing. (p. 140)

Each describes the event as engrossing, a complete immersion that was enjoyable and engaging.

An important part of Csikszentmihalyi's flow model is the self-sustaining nature of the system. Figure 1 shows the essential

preconditions for flow, challenge and skill, on two axes. When challenge and skill match, assuming other conditions discussed above are met, you are "in flow" (point A1 on the chart).[2] Yet as you continue at the activity, it is likely that your "skills" (broadly defined) will improve, leading you to A2, a state of boredom, where skills exceed challenges. You may also encounter more difficult challenges, placing you in anxiety, A4. Neither condition will be enjoyable, and you will thus be motivated either to increase the challenge to relieve the boredom, or increase the skills to end the anxiety. (While it is possible to end anxiety by decreasing the challenge, Csikszentmihalyi states that "in practice it is difficult to ignore challenges once one is aware of them" (p. 75.)) The result is a tendency to move toward A4, a more skilled, more challenged, and more complex state of the activity and, by consequence, of consciousness to experience it.

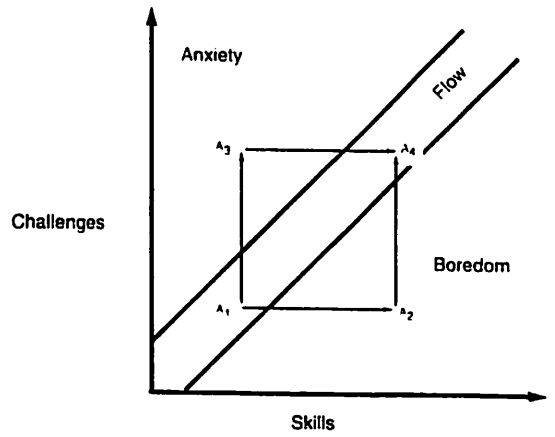


Figure 1. The conditions of Flow. [From Csikszentmihalyi (1988)]

In order for the person to remain in flow, the perceived challenge or complexity of the activity must constantly increase. This "complexification" is the critical force in the development of the skills related to the activity. The result of the flow activities, as reported in several of Csikszentmihalyi's studies (1988), is that although subjects in flow experience a loss of awareness of self during the activity, they feel a growth in self and their skills after it is over (p. 73).

Reading and flow

As noted earlier, reading is the most widely reported flow activity in the optimal experience literature. A re-analysis of the data from five studies of optimal experience by Massimini, Csikszentmihalyi, and Delle Fave (1988) reveals that more than twenty percent of the broad cultural groups surveyed (including Navajo and Italian students, Welsh farmers, blind Italian nuns (reading in Braille), and former drug addicts) said reading was the most frequent flow activity they engaged in. Sato (1988) also reviewed a number of flow studies in which almost all of the subjects reported reading as an optimal experience at one point. Their descriptions of the flow of reading match other optimal experiences. Massimini, Csikszentmihalyi, and Delle Fave quote several:

> It starts spontaneously, and it keeps on as long as I'm reading....I have to concentrate and get involved...I immediately immerse myself in the reading, and the problems I usually worry about disappear...It starts as soon as something attracts my attention particularly, something that interests me...It can start wherever there is a chance to read undisturbed...One feels well, quite, peaceful...I feel as if I belonged completely in the situation described in the book...I identify with the characters, and take part in what I am reading...I feel like I have the book stored in my mind. (pp. 68-73).

The informants" descriptions of their reading flow contains some qualities found in other optimal experiences: concentration on the task, interest in and attention to their reading, an immersion in the reading, a loss of the sense of self.

While descriptions of reading flow and its apparent widespread occurrence are well established, little is known about how people come to engage in the texts that give them an optimal experience. Specifically, the following research questions guided the present investigation:

1) What effect does the context of text selection, self-selected or assigned, have on the incidence of optimal experience during reading?
2) What difference does the classification of the prose (fiction or non-fiction/expository) have on the incidence of reading flow?
3) In what settings do readers come in contact with texts which produce flow (school, work, pleasure reading)?
4) What role do interest, background knowledge, style, and perceived benefit have in the experience of reading flow?

The present studies provide two separate examinations of these questions: first, a group of eleven children and adults were

interviewed to explore their reading flow experiences; and second, 76 adults were surveyed to establish the prevalence of the phenomenon and the commonality of factors involved in producing flow while reading.

The First Study

Informants and Method

Eleven readers (M=6, F=5), ranging in ages from 9 to 42 and representing a variety of backgrounds, were chosen to examine the conditions of involved in reading flow. Informants were chosen to represent a range of ages and anticipated amounts of total reading, including pleasure reading, school reading, and (for the adults) work reading. Seven of the subjects spoke both English and Spanish; three reported the flow experience only while reading English, two in Spanish, and two in both languages. One subject, Kara, is an English-dominant Vietnamese bilingual, and another, Larry, is trilingual in Malay, Mandarin Chinese, and English, with a self-reported high level of reading fluency in all three. The final two informants, Paul and Bill, are monolingual speakers of English. Table 1 provides basic biographical information on each informant.

Table 1

Biographical Characteristics of Subjects: First Study

Name	Sex	Age	Occupation	Language of Reported Flow
Caroline	F	9	Student	English/Spanish
Lenny	M	12	Student	English
Kara	F	18	Student	English
Larry	M	21	Student	English
Maxine	F	26	Clerk	Spanish
Seldon	M	27	Photographer	English/Spanish
Bill	M	30	Chemist/Part-time Student	English
Paul	M	31	Chemist/Part-time Student	English
Sandra	F	35	Clerk	Spanish
Violet	F	37	Administrator	English
Jerry	M	42	Director	Spanish

The informants were read the three descriptions of flow quoted above adapted from Han (1988) and Delle Fave and Massimini (1988). These descriptions were use because they provide a general description of the phenomenon in non-technical language as it was experienced by other subjects in the flow research. They were asked if they had ever had such an experience while reading, and if so, with which text(s). The researchers then asked the informants to describe the conditions under which they encountered the texts and the general impressions of the text and their experience after reading it. Each of the eleven interviews lasted approximately 45 minutes. Extensive notes from the recordings were then coded and placed into categories that they emerged from the data (Spradley, 1979). Categories included: level of interest in the text, types of texts (fiction versus nonfiction), context in which the text was encountered (school, work, pleasure), perceived benefits of flow, knowledge about text prior to reading, and other descriptions of how they felt while in flow.

To determine the circumstances under which the subjects experienced flow while reading, the investigators rated the interview data in terms of text type mentioned, the purpose for reading the text, and the setting, and whether the text was assigned or self-selected. This cross-case analysis used here for quantifying data (Miles & Huberman, 1994) yielded a count in each category which could then be subjected to statistical analysis. Initial interrater reliability for data classification was high (.91). A member check was conducted with each informant to verify the accuracy of the ratings (Patton, 1987).

We will first present the results in terms of the context, type of prose (fiction/non-fiction), and method of selection of texts, followed

by a narrative of the other conditions involved in the informants" reading flow and descriptions of the phenomenon.

Results

Tables 2 and 3 show the major categories of texts mentioned by the informants, the context in which they encountered them, and whether the texts were assigned or self-selected. The texts read for pleasure constitute a little less than two-thirds of the total (62%), with the remainder split between school (30%) and work (8%). The large majority of the texts providing flow (70%) were self-selected, with only less than a third (30%) assigned.

Table 2

Summary of Source and Selection Data: Study One

Source	Self-selected	Assigned	Total
School	2	7	9
Work	1	2	3
Pleasure	19	0	19
TOTAL:	22	9	31

Chi-square = 20.21, df = 2, $p < .0001$

Table 3

Type of Texts: Study One

Type	Number
Fiction:	23
Non-fiction:	8
TOTAL:	31

Chi-square = 2.84, Yate's Correction for Continuity applied, df = 1, p = .09

A statistical analysis using a 2 X 3 Chi-square test (Table 2) revealed that the division of the source categories of the texts (work = 3, school = 9, and pleasure = 19) by type of selection (self-selected = 22, assigned = 9) was statistically significant(Chi-square = 20.21, df = 2, $p < .0001$). Clearly self-selected texts read for pleasure were the most likely to be associated with flow. Differences between the types of text (Table 3) read trended toward significance (fiction = 23, nonfiction = 8; Chi-square = 2.84, Yates Correction for Continuity applied, df = 1 p = .09).

There was general uniformity in terms of the circumstances in which informants encountered their reading, regardless of whether the

text was self-selected or assigned. Subjects stated that for the texts that produce flow, they generally:

(a) had prior interest in the subject, author, or topic;

(b) had some prior knowledge of the topic;

(c) acquired some new information or refamiliarized themselves with "forgotten" information; and

(d) felt they had benefited either personally or intellectually from the text, and more so from these texts than from others which did not produce flow.

While self-selection was far likelier to produce flow experience than assigned texts, texts that were assigned by others (supervisors, instructors) would occasionally induce an optimal experience, but only when the interest of the assignor coincided with the interest of the informant, an interest usually present prior to the assignment. Kara notes, for example, that when the texts assigned were not interesting, they not only failed to produce flow, but "cause(ed) you to read less and less." None of the subjects believed that textbooks or assigned reading they did or currently do for school normally produced flow experiences. The one exception mentioned by two subjects was history texts, "because of the interesting story," but these flow experiences would be brief because the reading "would be constantly interrupted by vocabulary and comprehension questions" (Kara).

When asked to discuss the pleasurableness of optimal experience and its possible sources, many subjects felt that it was inherently satisfying to be in flow when reading. The subjects agreed

that they benefited more either personally or intellectually from reading which produced flow than those that did not. Maxine, in discussing the book El club Dumas, said it opened up a "new world" for her and gave rise to "personal evolution."

Paul said that for him, flow was nearly synonymous with concentration; nothing that he read "intently" could be comprehended fully if he did not go into flow. Much of what he read at work, on the other hand, was in fact only visually scanned for certain pieces of information needed to solve a problem he was working on. Sandra said her flow experiences are ones of intense mental immersion which produce an "illumination of the mind" when the text's meaning is grasped or particular problem solved. Jerry also spoke in similar terms about being in flow when engrossed in a particular problem which he seeks to solve via reading.

Perhaps the clearest case is that of our youngest subject, Caroline, age 9, who reads an average of thirty books a month. Her mother reports her being so engrossed in her reading that she ignores calls to the dinner table. Caroline herself describes losing all contact with her surroundings when reading, a very common occurrence with nearly every book she picks up.

The Second Study

Informants and Method

The informants were 76 adults (M = 53, F = 23; mean age = 28.5) drawn mostly from a large, private university community and from a waiting lounge at Los Angeles International Airport. The largest group in the sample was that of undergraduate and graduate students (N = 60), but there were also teachers, clerical workers, and professionals who participated. The first languages spoken by the informants also varied, with English (30), Chinese (23), Korean (11), Japanese (4), and others (8) included among the informants. Subjects were chosen to represent a variety of languages and reading habits, although the sample had a disproportionate number of students. A Flow Research Survey was created by the authors (Appendix), based upon the descriptions of flow provided by Massimini, Csikszentmihalyi, and Delle Fave (1988), and from data collected from the first study. As in the first study, the decision to use the previous descriptions of flow was based on the ease of recognition of the phenomenon as given in non-technical language by actual subjects from previous studies. Subjects were asked to read the descriptions of flow on the Survey, write down the name of any texts with which they had had this experience, and place an X next to the statements which described certain conditions under which they encountered each text. It was recognized that three settings listed, "school," "work," and "pleasure" are to some extent not equivalent, since one may find pleasure in school or work. Based on the comments from the interviews in the first study, however, it was believed that "pleasure" was the best indicator of the category of recreational leisure reading, and so was used in the questionnaire.

Results

Tables 4 and 5 summarize the findings of the questionnaire in terms of source, method of selection, and type of text. Texts read for

pleasure that produced flow were, as in the first study, the most popular (N = 188), constituting 75 percent of the total recorded (N = 251). Texts read for school constituted 22 percent (N = 55), and finally work with 3 percent (N = 8). As in the first study, self-selected texts (N = 203) were more likely to cause flow that assigned texts (N = 48). A 3 X 2 Chi-square test (Table 4) on type of texts read by type of assignment revealed highly significant differences among the categories (Chi-square = 108.17, df = 2, $p < .0001$).

Types of texts chosen again favored fiction being under both pleasure reading and school reading categories (fiction = 186, nonfiction = 65). A 2 X 3 Chi-square test on type of text by setting (school, work, pleasure) again revealed highly significant differences (Chi-square = 25.70, df = 2, $p < .0001$).

Table 4

Source and Selection of Texts: Study Two

Source	Selection: Self	Assigned	Total
School	9	46	55
Work	6	2	8
Pleasure	188	0	188
TOTAL:	203	48	251

Chi-square = 192.63, df = 2, $p < .0001$

Table 5

Type of Texts: Study Two

Type	School	Work	Pleasure	Total
Fiction:	38	0	148	186
Non-fiction:	17	8	40	65
TOTAL:	55	8	188	251

Chi-square = 25.70, df = 2, $p < .0001$

In addition, five statements derived from the findings of the first study in regards to specific conditions often associated with reading flow were presented in the survey. Subjects were asked to indicate which, if any, of the statements applied to the texts they had recorded as having produced flow. A majority of the texts were ones in which subjects had an interest (80%), provided some personal or intellectual benefit (63%), and encountered some new or unfamiliar information/topic (59%). This is consistent with both the findings of the first study and the general flow model, where the person in flow meets some form of challenge and gains as a consequence a sense of satisfaction. A sizable percentages of the texts were also ones about which the reader knew something (40%) or contained a different style or format for the reader (30%).

Discussion

Given the limitation of the present studies in terms of sample size, composition, and the operational difficulties of measuring a highly subjective experience such as flow, our discussion must necessarily be treated as tentative based on the data provided, but still suggestive of some important themes in the psychology of reading.

Conditions of Flow in Reading

Csikszentmihalyi states that flow will take place when challenges meet skills in a given activity, a process which is self-perpetuating upward as one's skills increase and greater challenges are sought, resulting in perceived benefits to the self intellectually, emotionally, physically, or otherwise. The conditions under which our subjects engaged in reading with optimal experiences fit the flow model in both studies: (a) subjects often had some prior knowledge of the topic of the text or sufficient interest before or while reading it; (b) the text usually contained some new or relatively unfamiliar aspects, providing the challenges to sustain flow, which in turn (c) usually caused growth and perceived benefits from increased knowledge and/or personal development.

What is no doubt taken for granted by Csikszentmihalyi but stated explicitly by our informants in both studies was that the object of the activity, in this case the book or article, was of interest to them. Many of Csikszentmihalyi's studies deal with hobby activities chosen by the participant: rock climbing, motorcycle riding, dancing,--all activities which, by their very nature of self-selection, are of interest to the informants. Reading, however, may be obligatory or optional,

depending on the setting. Neither situation guarantees a flow experience or interest in the reading--both self-selected and assigned texts may (potentially) be uninteresting and therefore unengaging from the point of view of the reader. In the settings where texts were most often assigned--school and work--texts that did produce flow tended to be those in which the subject had some prior interest. This is clearly seen in the second study, where nearly two-thirds (32/55) of the school texts listed as having produced flow were ones in which they subjects indicating as having an interest. There seems to be a "Coincidence Effect" for producing flow: the assigned text must coincide with the reader's level of skill/knowledge and interest, the match resulting in (at least the potential for) an optimal experience.

Still, the informants clearly demonstrated that having a text assigned did not normally produce flow while reading; rather, pleasure reading--or at least having a choice in the text read--was by far the most common method. Several informants in the first study noted that the reader knows his/her own level of skill, challenge, and subsequent interest better than anyone else, including the teacher.

An interesting confirmation of the importance of self-selected pleasure reading versus assigned reading in producing intense engagement is found in Nell (1988). Nell invited a group of 33 "ludic" or pleasure readers to participate in a laboratory experiment designed to measure the physical reactions (pulse rate, muscle activity on the face, respiration rate, etc.) of readers while engaged in various types of texts. These reactions served as metrics of concentration, attention, and arousal in the reader. Measurements were taken during the reading of self-selected texts (all fiction) and during the reading of

an assigned selection from a psychology textbook. The readers were told they would have to give a summary of the main points of the psychology text--but not their pleasure reading book--after reading it. While we would expect that the psychology selection to produce higher rates of arousal than the pleasure reading, given the summary task assigned to it, Nell found nearly the opposite: readers were as aroused, and often more so, in their self-selected book rather than in the assigned text, suggesting that there was equal or greater engagement in the self-selected texts.

This finding is also in part substantiated by work done on the amount of attention needed to read a text which a reader finds difficult. Britton, Piha, Davis, and Wehausen (1978) found that the greater the difficulty of the text for the reader, the less attention devoted to it; what was "easy" for readers captivated their attention more fully than the "tough" text of the experimenters. The reader's attention, it seems, is engaged more completely when the text is within his/her level of reading competence (as a function of background knowledge and other factors). That reading level, it further follows, is most easily determined by readers themselves.

The relatively low number of texts that produced flow at work in our studies is not surprising, then, given the type of assigned reading typically done in that setting. Kirsch and Guthrie (1984) found that most reading at work is "reading for specific information"--the sort of scanning that our informant Paul referred to. Presumably this would not produce a flow experience, as the information may not require comprehension of new ideas or engagement in a narrative. The school texts which produced flow in both studies were all either

fiction books or long narratives that did not have low-level, "find the answer" format or purpose for reading.

The primacy of fiction in producing flow in both studies is consistent with another aspect of Nell's (1988) extensive research on pleasure reading. Nell examined several different groups of readers in a series of studies and found fiction was chosen by the overwhelming majority of his subjects. In one study, four "fanatic" pleasure readers were selected from a larger group of 33 adult readers and asked about their reading preferences and behaviors. Fiction was mentioned almost exclusively by the readers as the type of text which produced "trance" states of engagement when reading. Nell argues, however, that the fiction/non-fiction distinction may not be the best way to classify texts that produce intense engagement; rather, narrative/non-narrative seems more accurate a description of the differences. He points out that the trance (flow) one derives from reading a gripping news account it no different from that produced by an entertaining novel. We can see from our informant Kara's comment on the flow she experienced while reading certain history texts that while fiction may be the most common vehicle for narrative in pleasure reading, it need not be the only one.

The association of flow with fiction and narrative also suggests that it may be induced more when the reader takes, in Rosenblatt's (1983) term, an "aesthetic" stance to the text. Rosenblatt notes that readers tend to approach text somewhere along a continuum of the "efferent" and the "aesthetic," with the former focused on carrying away information for use after the reading, and the latter concerned with the experiential state during the reading. Although no attempt

was made to determine the stance of the reader vis-a-vis a specific text, the predominance of fiction among the texts mention as producing an optimal experience in the studies suggests that flow may be more closely tied to the aesthetic end of the continuum.

There are potentially confounding variables in the present studies, however, which limit the conclusions that can be drawn from the data provided here. Since fiction was by far the most common type of reading done by the informants, it is not possible to know whether non-fiction produces less flow in readers in general, or merely that the informants used in this study preferred this type of reading. Further experimental work is needed, comparing a group of fiction and non-fiction readers, to determine whether fiction per se is the cause of the higher incidence of reading flow.

Similarly, the prevalence of pleasure reading as a preferred form of reading may mask whether other settings can produce flow, but were, due to the biases of our particular sample, not adequately represented. What can be said, however, is that pleasure reading was the setting most likely to be identified with the flow experience when subjects were presented with a choice of settings.

There were two further limitations in the studies. First, there was the potential confound of social desirability in the interviews and the questionnaire. Respondents may have felt that not writing down a certain number of texts or checking certain responses would reflect negatively on them, even in the case of an anonymous questionnaire. Second, although the questionnaire indicates that respondents should only proceed if they had indeed experienced flow as defined by the examples provided, there is no clear "filter" option where those who had no recollection of being in flow could quickly terminate their participation.

Further Research

Several issues raised by the studies require further investigation. Since the subjects used were mostly adults, further work on how children experience flow in reading is needed. The connection between flow and the acquisition of language is also a promising area for further exploration. Our subject Paul, for example, spoke of flow as being the same as concentration on the text, as complete and deep comprehension of the message. All optimal experiences have, at their root, this immersion of consciousness in the task, in the case of reading flow, of being "lost in a book." If attention to a task, influenced by interest, is necessary for stimuli to enter into consciousness, and consciousness is (as Csikszentmihalyi suggests) most actively and deeply engaged while in flow, then it may be that the fullest acquisition of knowledge may require some level of optimal experience. Flow in reading may thus be a key element for the acquisition of written language and the cognitive aspects of what we call literacy. Nell (1988) takes a compatible position on this question, arguing that cognitive change takes place during the "trance" (flow) of reading. Citing the close parallels between intense reading engagements and hypnotic states, Nell says that the reader's "concentrated attention transfigures both the self and the object of attention" (p. 264), resulting in cognitive change.[3] Closer examination of these issues via descriptive accounts may help us understand if and

how flow is linked to larger questions of language and literacy acquisition.

Notes

1. We would like to thank Laurie MacGillivray, Steve Krashen, Lucy Tse, and an anonymous reviewer for their comments and suggestions on this paper.
2. "Challenge" in the context of reading should not here be confused with "difficulty," but rather be used to include the presence of anything "new" in the input. Thus, a reader may experience flow from a variety of texts as long as they offer interesting elements that sufficiently engage them, even if it may be "easy" for him/her. This may vary from reader to reader and according to the purposes of an individual reader.
3. There is also a parallel phenomenon of deep engagement in the research on second language acquisition, what Krashen (1982) has called the "Forgetting Principle": in order to acquire language, you must be focused on the meaning of a message which contains new linguistic information, and not its form. You must, in short, "forget" you are listening or reading a new language and engross yourself in the meaning in order for the new linguistic information to be acquired.

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Appendix

Research Questionnaire

The purpose of this survey is to determine how and what people read under a variety of circumstances. Your participation is voluntary, and you and your responses will remain completely anonymous if they are used in a published study. The questionnaire will take about **5-7 minutes to complete.**

1. Date of Birth: _____
2. Sex: M F
3. Occupation: _____
4. Level of education (last grade completed): CIRCLE
Some high school High school Some college B.A. M.A. Ph.D.
5. Please list the languages you speak/read besides English:

_____ _____ _____

Please read the following three quotations describing certain frame of mind or experience.

My mind wasn't wandering. I was not thinking of something else. I was totally involved in what I was doing. My body felt good. I didn't seem to hear anything. The world seemed to be cut off from me. I was less aware of myself and my problems.

My concentration was like breathing. I never thought of it. I was really quite oblivious to my surroundings after I really got going. I thought that the phone could ring, and the doorbell could ring, or the house burn down or something like that. When I started, I really did shut out the whole world. Once I stopped, I could let it back in again.

I was so involved in what I was doing. I didn't see myself as separate from what I was doing.

6. Now, think about all of the things you have read over the past few years. Did you have an experience like any or all of the above descriptions when reading? If so, write down some of the names of the books or other readings that produced this experience below and check the items that apply from the list:
a. Name:_____
I read it for:
___School ___Work ___Pleasure ___Other: _____
It was something:
___I read because I wanted to. ___someone required me to read (boss, teacher).
Place an X next to all of the statements that are true about this material.
___ I was interested in the what I was reading.
___ I already knew something about what I was reading.
___ There was something new or unfamiliar in what I was reading.
___ What I was reading contained a different style or format than what I normally read.
___ I received some intellectual or personal benefit from what I read.
(space was provide for 5 separate texts)