Linguistica Silesiana 27, 2006
ISSN 0208-4228

EWA PIECHURSKA-KUCIEL
Opole University

SELF-PERCEIVED FOREIGN LANGUAGE SKILLS AND LANGUAGE ANXIETY: A LONGITUDINAL STUDY[1]

The paper presents results of a longitudinal study investigating levels of language anxiety experienced by secondary school students learning English in a Polish secondary school. The main findings of the research focus on levels of language anxiety experienced over 3 years of FL study. This variable is also correlated with semester grades, self-perceived levels of foreign language skills and the length of language study. The results corroborate the main hypothesis of the research, according to which the language anxiety levels decrease with the development of language proficiency over time. That is not the case of dyslexic students whose language anxiety intensity remains stable. Language anxiety levels are also gender-dependent with girls experiencing their significantly higher levels than boys.

The aim of the present paper is to investigate levels of foreign language anxiety and its correlation with self-perceived levels of FL skills over 3 years of study at the Polish secondary school. The study also aims at clarifying empirically the role of gender and developmental dyslexia in the above relationship. First, the phenomena in question will be outlined with an attempt to display their interconnection. Then empirical findings will be presented and discussed with reference to time, gender and language deficits.

1. Introduction

The process of learning a foreign language is connected with feelings of apprehension and doubt as learners are required to express themselves in a language they

[1] The research was financed by the State Committee for Scientific Research (2004–07). This paper was presented at the EUROSLA 15 Conference in Dubrovnik, Croatia (14–17 September 2005).

do not know well (Young and Kimball 1995). In this way the necessity to communicate in a limited linguistic repertoire threatens one's self-perception of genuineness (Horwitz 1999). Such a situation leads to the formation of a phenomenon called *foreign language anxiety* that may be defined as 'the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient' (Gardner et al. 1993: 5). It is also viewed as 'a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning process' (Horwitz et al. 1986: 128).

It is hypothesized that students who start the foreign language acquisition process may not necessarily suffer from high levels of language anxiety due to their motivation and language aptitude being the dominant factors responsible for language success (MacIntyre et al. 1989). Nevertheless, language anxiety is said to develop in consequence of repeated negative experiences with the foreign language (MacIntyre et al. 1991a, Gardner et al. 1993). At that time the anxiety attributed to the language learning situations leads to identifying the fear with the foreign language being studied (Mihaljević Djigunović et al. 2004). Still, in the course of language study, as FL proficiency expands, language anxiety levels may decrease due to the occurrence of more positive learning experiences (Mihaljević Djigunović 2004).

Nevertheless, it may also be presumed that in some cases high language anxiety levels may prevail throughout the whole language learning process due to other intervening factors, like learning deficits, such as developmental dyslexia[2] (Ganschow et al. 1998) among others. According to the Linguistic Coding Differences Hypothesis, 'the primary causal factors in successful or unsuccessful FL learning are linguistic; that is, students who exhibit FL learning problems have overt or subtle native language learning differences that affect their learning of a foreign language' (Ganschow et al. 1998: 248–9). In other words, general language skills affect the acquisition of the foreign language (Sparks et al. 1991). Skills in the native language components are believed to provide the basic foundation for foreign language learning (Spolsky 1989), so L1 and L2 learning are interrelated, as they reflect basic language functions (Ganschow et al. 1995).

---

[2] It is understood as 'a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge' (Lyon et al. 2003, p. 2).

2. Method

One of the aims of the present study is to corroborate empirically the hypothesis presented by Gardner and MacIntyre (1993), according to which language anxiety levels decrease in the course of language experience. It is assumed that the measurements of the language anxiety levels over 3 years of study at the secondary school will regularly lower. Accordingly, the main hypothesis adopted for the purpose of this study is the following:

H1: *Language anxiety levels decrease in the course of language experience.*

Another factor taken into consideration while measuring language anxiety levels is gender. The investigation of its role in the way language anxiety is experienced led to inconsistent results. In some studies boys are found to display higher language anxiety levels during a language course (Campbell et al. 1994; Campbell 1999). Other studies show there are no significant differences between FL anxiety levels in boys and girls (Aida 1994). Nevertheless, as it is presumed that girls generally demonstrate higher general anxiety levels (Jose et al. 2003), the next hypothesis is:

H2: *Girls declare higher language anxiety levels.*

Another issue to be investigated in the present paper is the relationship between developmental dyslexia and language anxiety. Following the Linguistic Coding Differences Hypothesis, it can be speculated that within the group of at-risk learners displaying low achievement in foreign language learning there is a group of students with language deficits. Their lack of progress is not connected with affective variables, such as low motivation or language anxiety, but rather with defective phonemic awareness – 'the ability to isolate and manipulate consciously the sounds of the language and relate them to the appropriate written letters or letter combinations' (Nijakowska 2000: 248), impeding the process of blending or analyzing sound segments and rearranging phonetic elements (Downey et al. 2000). Developmental dyslexia is correlated with numerous negative effects, like difficulty with motor skills, poor working memory, low self-esteem or slow speed of information processing (Crombie 2000). While a high-anxiety learner may suffer from a variety of language anxiety effects; from academic and cognitive to social and personal (MacIntyre 1999), a dyslexic student is even more prone to affective disorders (Gindrich 2002). Developmental dyslexia may then be a significant cause for experiencing high language anxiety levels (Ganschow et al. 1998) that may not easily decrease in the course of time due to anxiety being a consequence 'of differences in basic language competence' (Ganschow et al. 1996: 208). It in turn leads to 'an impairment in the representation and manipulation of phonemes' (Fisher et al. 2002: 767). Accordingly, the next hypothesis formulated for the purpose of the study is the following:

H3: *Dyslexic FL students experience high language anxiety levels that may remain stable over the length of the secondary school language experience.*

According to studies on language anxiety, it is correlated with deficits in learning and performance (MacIntyre et al. 1989; Ganschow et al. 1996). Students with higher

FL ability measured as final exam grades demonstrate lower anxiety levels (Horwitz 1986; Aida 1994), while under-achievers may suffer from higher anxiety. As the research on the correspondence of teacher and student grades shows that there is an agreement with a student tendency to overestimate rather than underestimate their grades (Sullivan & Hall 1997), self-ratings of FL skills are assumed to constitute a reliable source of knowledge of student abilities. It is then hypothesized that:

H4: *Higher self-assessment of FL skills and semester grades are correlated with lower language anxiety levels.*

The subjects of the study were 391 students (N=391) coming from 16 classes of the six secondary grammar schools in Opole. There were 126 boys and 265 girls. At the beginning of the study their average age was 16 with the minimum of 15 and maximum – 18 years of age. They all attended classes with the average programme of English: three to five hours a week.

The design of the study was a longitudinal, time-series design using multiple measures taken at different points of time (Graziano et al. 1993). The research was conducted by comparing means obtained on the language anxiety scale with means of other variables.

The basic instrument used in the study was a questionnaire. It consisted of the 33-item Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz and Cope (1986). The maximum number of points in the scale was 165 on a 5-point Likert scale (1–I strongly disagree to 5–I strongly agree). Its reliability was assessed by means of Cronbach's α = .9354 in the first wave, then .9396 and .8602.

Another scale used was the 20-item Revised Adult Dyslexia Checklist (Vinegrad 1994) translated by Bogdanowicz and Krasowicz (1996) with *yes* and *no* answers, Cronbach's α = .7268. There were also additional items exploring gender, self-assessment of FL skills with the Likert scale of 1 to 6 for the highest grade, semester grades (1–6) and the length of one's experience with English.

The data collection procedure took place over 3 years: 2002–05. The language anxiety measurements were taken in December 2002, December 2003 and January 2005. In the second wave of the study dyslexia symptoms were checked. Each time, in each class, the students were asked to fill in the questionnaire. The time slotted for the activity was 15 to 45 minutes, depending on the speed at which the participants worked. They were asked to give sincere answers without taking time to think. Each part of the questionnaire was preceded by a short statement introducing a new set of items in an unobtrusive manner.

There are three kinds of variables identified in the study. The dependent one is language anxiety. The independent variables are semester grades, self-assessment of FL skills and the length of one's experience with English, while the moderator variable is gender and symptoms of developmental dyslexia. All the variables are operationally defined as questionnaire items.

The data were computed by means of a statistical programme STATISTICA, with the main operations being descriptive statistics (means – arithmetic average and SD showing how far individuals vary from the mean), together with correlation – 'an estimate of the degree to which two sets of interval scale scores go together' (Brown

1988: 132), represented by the Pearson's product-moment correlation coefficient *r* and the Spearman rank-order correlation *R* for nonparametric statistics. There is also the correlated student's t-test and t-test for independent samples, exploring mean differences between two groups of subjects (Graziano et al. 1993).

3. Results

As far as the participants' length of English study is concerned, the mean exposure in the beginning of the study was 5.8 years with the minimum of less than a year and the maximum – 13 years of study (SD – 2.9).

The results of the measurements of the language anxiety scale were the following: in Form 1 the mean of language anxiety level was 86.87 (SD = 24.14), in Form 2 it lowered to 82.78 (SD = 23.36), while in the last Form 3 it was 80.62 (SD = 24.32). These results are presented in Fig 1 below.

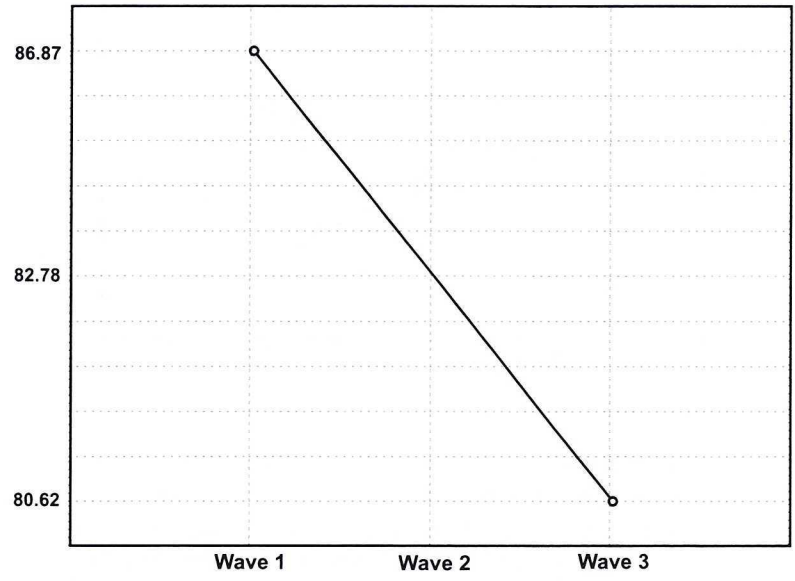

Fig. 1. Language anxiety levels in the Polish secondary school

As far as correlated t-test results for measuring differences among the 3 waves of the study on language anxiety levels are concerned, there are significant differences between the first and the second measurement ($t_{1,2}$ = 4.88*[3], p = .0000) and also between the second and third ($t_{2,3}$ = 2.57*, p = .0104).

[3] An asterisk denotes a statistically significant result.

Similar results were found in reference to the measurements of language anxiety levels obtained by boys and girls. In the three waves girls obtained respectively 88.70, 84.84 and 82.58. There were significant differences in their performance in the three waves (t_{W1-2} = 3.61*, p = .0004 and t_{W2-3} = 2.23*, p = .0267). A slightly different result was found in the case of boys (see Fig. 2) with their anxiety levels being 83.01, 78.43 and 76.48 (t_{W1-2} = 3.45*, p = .0007 and t_{W2-3} = 1.3, p = .1961). Nevertheless, in all the 3 waves there is a statistically significant difference between anxiety levels experienced by females and males (t_{W1} = 2.19*, p = .0293; t_{W2} = 2.56*, p = .0109 and t_{W3} = 2.3, p = .0203).

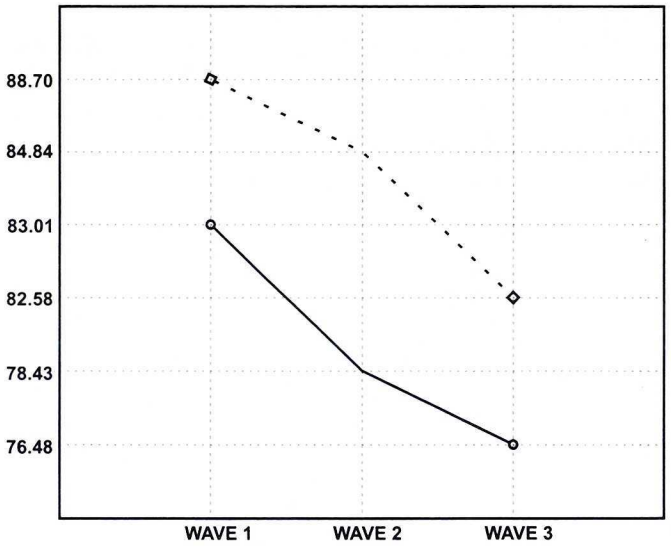

Fig. 2. Language anxiety levels (boys and girls)

As far as the correlation between language anxiety levels measured in the 3 waves and the length of study of the English language in secondary school is concerned the results are respectively: r = -.4* in Form 1, -.37* in Form 2 and -.35* in Form 3. On the other hand, students with a short history of English experience (less than 2 years) displayed high language anxiety levels (101.14; 99.4 and 92.1). A significant decrease is observed only in the case of the last measurement (t_{W1-2} = .6, p = .534 and t_{W2-3} = 3.17*, p = .003).

One the basis of the Revised Adult Dyslexia Checklist results (Vinegrad, 1994), the sample was divided into quartiles. The lower quartile (<=22) accommodated 140 students with no dyslexia symptoms and the upper quartile (>=26) comprised a group of 105 students with developmental dyslexia symptoms. As far as the students free from dyslexia symptoms were concerned, their language anxiety levels were respectively: 80 (SD = 22.84), 76.76 (SD = 21.42) and 74.6 (SD = 22.22) in the 3 waves. The level of language anxiety of dyslexic students was 93.17 (SD = 23.49), and 91.3

(SD = 24.25) and 88.72 (SD = 24.68) respectively. The correlated t-test results show that only in the non-dyslexic group there is a statistically significant decrease of language anxiety levels after the first year of secondary school study ($t_{W1-2} = 2.46$, $p = .0152$). Other comparisons do not render statistically significant differences.

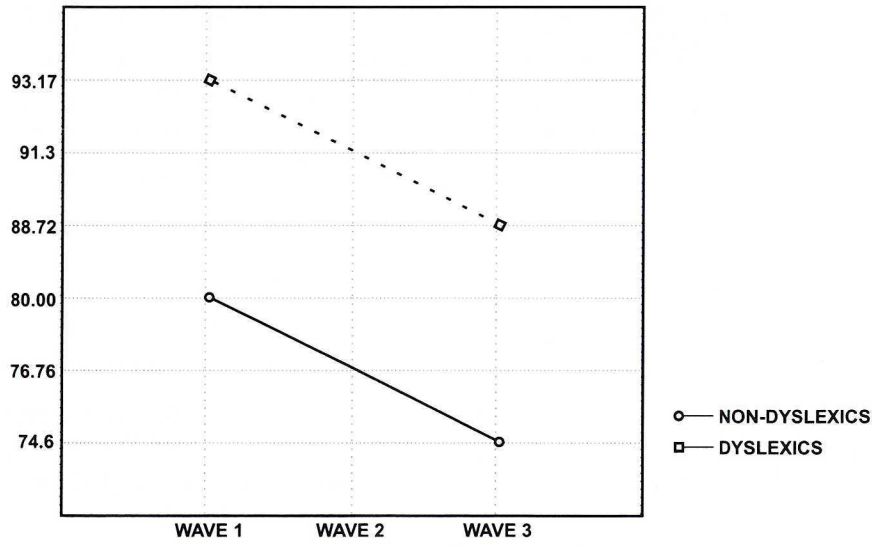

Fig. 3. Anxiety levels of dyslexic and non-dyslexic students

As far as girls with dyslexia symptoms are concerned, their anxiety levels at 3 points of measurement are 96.11, 96.59 and 93.95. No statistically significant decrease of language anxiety levels can be observed in time with $t_{W1-2} = -.2$, $p = .8405$ and $t_{W2-3} = 1.47$, $p = .146$. On the other hand, boys with dyslexia symptoms obtained 88.76, 83.38 and 80.88 on the language anxiety scale. In their case a falling tendency can be found with the measurements of language anxiety levels in Form 1 and 2 ($t_{W1-2} = 2.12^*$, $p = .04$) but not in Form 2 and 3 ($t_{W2-3} = 1.02$, $p = .3112$).

Student self-assessment of their FL skills shows that the skill assessed highest throughout the whole study is reading (4.15, 4.23 and 4.29), while writing is the skill assessed lowest (3.57, 3.75 and 3.77). When comparing self-assessment of FL skills, it is clear that there is a strong tendency for the subjective evaluations to rise in time (apart from the assessment of listening which remains stable in Forms 2 and 3). Correlated t-test results show that there is a remarkable rise in Form 2 with all the skills to be self-assessed higher, while there is virtually no statistical improvement observed in Form 3 (see the results in Table 1 below)

Table 1. Summary of self-assessment of FL skills results

			t_{W1-2}	p	t_{W2-3}	p
Speaking	Speaking 1 Speaking 2 Speaking 3	3.6 3.77 3.79	-4.23*	.0000	-.63	.5278
Writing	Writing 1 Writing 2 Writing 3	3.57 3.75 3.77	-4.44*	.0000	-.76	.446
Reading	Reading 1 Reading 2 Reading 3	4.15 4.23 4.29	-1.99*	.0471	-1.77	.0782
Listening	Listening 1 Listening 2 Listening 3	3.7 3.8 3.8	-2.28*	.0228	-.03	.9753

Similarly to self-assessment, expected semester and final grades show a rising tendency starting from Form 1 to 2, while in Form 3 they remain stable (see Table 2). Surprisingly, they remain at a higher level than subjective estimates of FL skills.

Table 2. Expected semester and final grades

			t_{W1-2}	p	t_{W2-3}	p
Semester grades	Wave 1 Wave 2 Wave 3	3.74 3.88 3.81	-3.38*	.0009	1.7	.0901
Expected final grades	Wave 1 Wave 2 Wave 3	3.88 4.16 4.13	-9.02*	.0000	-.8	.424

The results of non-parametric correlations of FL skills and language anxiety show that all of them are high and statistically significant (Table 3). The skill related to language anxiety in the strongest manner, yet negatively, is speaking, while the one whose relationship with language anxiety is the weakest of all is the skill of writing. The total self-assessment of FL skill is correlated strongest in Form 2. On the other hand, the grades are also related to language anxiety, especially the ones expected by the end of the school-year.

Table 3. Correlations between language anxiety and grades with FL skills

	Sem. grade (R)	Final grade (R)	Speaking (R)	Writing (R)	Reading (R)	Listening (R)	FL skills self-assessm (r)
Wave 1	-.46*	-.5*	-.56*	-.49*	-.49*	-.5*	-.64*
Wave 2	-.43*	-.46*	-.6*	-.46*	-.53*	-.49*	-.66*
Wave 3	-.37*	-.47*	-.57*	-.49*	-.47*	-.51*	-.61*

4. Discussion

The findings of the present study partially corroborate the model of language anxiety development proposed by MacIntyre and Gardner (1991a). In the 3 waves of the research language anxiety levels gradually and constantly decreased in the whole sample of secondary school students. The highest language anxiety levels in Form 1 can be explained by the fact that apart from facing a new challenging course, the participants had just experienced a transition from a different school type, which was likely to increase their worry and anxiety (Pappamihiel 2001).

Nevertheless, with their language experience expanding, the students' anxiety lowered, which may lead to a conclusion that the students learning English developed positive emotions accompanied by growing proficiency and experience connected with the FL learning process. That process of experience growth is directly connected with time because it is significant investment of time that is tightly connected with effective learning irrespective of talent in a particular area (Ericsson et al. 1993).

Consequently, the first hypothesis of the study according to which *language anxiety levels decrease in the course of language experience* could be accepted. It is also worth mentioning that all the mean language anxiety results obtained in the 3 forms of the Polish secondary school are considerably lower than the measurements of language anxiety levels presented in the literature of the field so far (e.g., Horwitz et al. 1991; Aida 1994). It can be explained by the vast popularity of the English language in Poland. It is apparent that a majority of Polish students choose English as a compulsory foreign language at school.

Unfortunately, the findings of the research do not make it possible to support the claim according to which for beginner students, 'anxiety plays a negligible role in proficiency' (MacIntyre et al. 1991a: 110). The sample comprised a group of students whose experience with the EFL process was relatively short (about 2 years) and who still suffered from very high language anxiety levels. That may be attributed to the fact that although in all the studied classes the course of English started as a beginner one, a majority of the students had already had a substantial exposure to formal teaching of English, either in the previous school (junior high) or in private tutorials. In this situation the real beginner students were forced to catch up with their false beginner peers, which might negatively influence their emotions and attitudes to language

learning. Hopefully, their anxiety levels lowered in the third wave towards the end of the secondary school, which may lead to an optimistic conclusion the even in spite of the obligatory maturity examination in English[4] they were supposed to take in 4 months, the students were able to encounter more favourable experiences in the language learning process, thanks to which their anxiety levels decreased. It may be concluded that the secondary school offers general language education in which past or initial negative language experiences are regularly eliminated due to occurrence of positive experience and increased achievement (Young 1994).

The next hypothesis focuses on the role of gender in experiencing language anxiety (*girls declare higher language anxiety levels*). Following the claim made by Oxford, Ehrman and Lavine (1991) about gender differences in reactions in the FL classroom, it was expected that boys and girls also differ in ways of perceiving language anxiety. The present research shows that throughout the whole length of the study the female participants did acknowledge higher language anxiety than males, although these levels lowered in a statistically significant manner. It corroborates general findings that female students are in the main more worried and anxious than boys (Gierl et al. 1996), while boys are described to be able to reduce fear and anxiety (Byrne 2000) and are generally less fearful than girls (Ginsburg et al. 2000). Males' experience of language anxiety was not as severe as girls' – they had a stable tendency to declare to be less anxious, while in the last wave of the study their anxiety did not statistically lower but it was still considerably lower than that of females. It would seem that boys do not experience much pressure connected with communication in the foreign language, test anxiety or fear of negative evaluation which constitute roots of language anxiety (Horwitz et al. 1986). Surprisingly enough, females are found to be superior to males in their expressive skills, especially speaking, and are more relaxed with language activities involving speaking or writing (Meunier 1994). Moreover, their attitudes to language learning are described to be more positive (MacIntyre et al. 2002). It would then seem that it can be attributed more to test anxiety that largely affects the language anxiety scores as men generally gain lower test anxiety results (Lowe et al. 2005). The role of fear of negative evaluation also comes into play as women are found to be afraid of such evaluations more than men (Roberts 1991).

Empirical research on the origins of language anxiety is still scarce (MacIntyre 1999), so it seems worthwhile to shed more light on the relationship between language anxiety and developmental dyslexia constituting one of its sources. The results obtained in the research allow for corroborating the next hypothesis, according to which *dyslexic FL students experience high language anxiety levels which may remain stable over the length of the secondary school language experience.* Students diagnosed with symptoms of developmental dyslexia suffer from high, yet quite constant, language anxiety levels. In the case of boys with developmental dyslexia, their

[4] In the Polish educational system the secondary level of education finishes with the maturity examination obligatory in the foreign language. Students choose its level (basic or advanced).

language anxiety levels decreased by the end of secondary school, which might be attributed to their ability to reduce fear (Byrne 2000). On the other hand, although girls with developmental dyslexia study more and work harder (Jurek 2003), due to their learning disabilities, they may be described to show more emotional and behavioural problems (Hellendoorn et al. 2000). Consequently, their experience of language anxiety may be a painful affliction for them.

These results also allow for accepting the Linguistic Coding Differences Hypothesis, according to which successful FL learning can be attributed to linguistic factors deeply rooted in one's learning disabilities. It is noticeable that in some cases in spite of the students' long exposure to the English classroom instruction, high anxiety levels can still be perceived. It is now clear that developmental dyslexia, not merely poor native language skills *per se*, is a significant cause of higher and stable foreign language anxiety levels. It significantly affects the individual's learning abilities as such students are found to be easily distracted, uncoordinated; they may also have poor time-management skills (Barga 1996). Apart from difficulties at the orthographic/ phonological level, they have problems understanding language rules or reflecting on language (Ganschow et al. 2000).

According to the last hypothesis of the present research, *higher self-assessment of FL skills and semester grades are correlated with lower language anxiety levels.* The results show the whole hypothesis can be accepted. The present research corroborates findings on negative effects of language anxiety leading to poor learning results (Phillips 1992) with highly anxious students being more affected by their self--deprecatory abd self-evaluative thinking.

High language anxiety students have a tendency to underestimate their FL competence, as is also corroborated by research (MacIntyre at al. 1997). The skill related to language anxiety in the strongest manner, yet negatively, is speaking, the most anxiety-provoking of second language activities (MacIntyre et al. 1991b). It does not seem surprising when taking into consideration communication apprehension as one of the roots of language anxiety that affects quality of L2 communication (Horwitz et al. 1986). Moreover, highly anxious students assess their communication competence lower than a neutral observer (MacIntyre et al. 2002), which is certainly the case of such students in the present study who expect higher semester grades in spite of their low self ratings of their FL skills.

Self-assessment of other skills also seems language anxiety-dependent. Listening is highly correlated with anxiety (Vogely 1999) as is constitutes a significant aspect of FL communication. Reading is equally related to anxiety due to its affecting text decoding and processing (Saito et al. 1999). The skill that is related to language anxiety in the weakest manner is writing. Nevertheless, their correlation is still quite high, which is also confirmed by the research (Leki 1999).

Finally, it must be concluded that self-assessment only partially explains language anxiety levels experienced in the secondary FL classroom. At the beginning of secondary school experience self-assessment is affected by the new school – then its levels are lowest, accompanied by high language anxiety. Students are afraid of new expectations and school. In the next grade they feel more self-secured, they tend

to be more relaxed because the surroundings are already familiar. Their self-assessment grows, while language anxiety levels decrease. Time spent within the secondary learning environment leads to growing performance and mastery in the foreign language, at the same time their self-esteem gets stabilized till the end of their secondary school experience.

The basic conclusions of the research can be summed up in the following points:

1. Language anxiety levels decrease with growing FL mastery gained over time.
2. Real beginner students may suffer from high language anxiety levels due to intervening factors, like school transition or false beginners' pressure.
3. Girls suffer from significantly higher language anxiety levels than boys.
4. Dyslexic students experience high, yet stable language anxiety levels throughout their FL language experience in secondary school
5. High language anxiety students have a tendency to underestimate their FL skills.
6. Speaking is the most anxiety-provoking skill.
7. Self-assessment of FL skills, though initially rising, remains stable towards the end of secondary school.

The study is certainly not free from any limitations. The instrument used for measuring symptoms of developmental dyslexia is the Revised Adult Dyslexia Checklist (Vinegrad 1994). It is a preliminary tool whose indications need to be confirmed by a team of specialists, which was impossible in the research due to practical reasons. Hence, the dyslexia measurements are tentative and must be treated with care. Although the research design is longitudinal, only plausible influences can be inferred.

References

Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's constructs of foreign language anxiety: The case of students of Japanese. *Modern Language Journal* 78, 155–168.

Barga, N.K. (1996). Students with learning disabilities in education: Managing a disability. *Journal of Learning Disabilities* 29, 413–421.

Bogdanowicz, M., Krasowicz, G. (1996). Kwestionariusz objawów dysleksji u dorosłych (KODD), http:// dysleksja.univ.gda.pl

Brown, J.D. (1988). *Understanding research in second language learning. A teacher's guide to statistics and research design.* New York: CUP.

Byrne, B. (2000). Relationship between anxiety, fear, self-esteem and coping strategies an adolescence – statistical data included. *Adolescence* 35, 201–215.

Campbell, C.M. (1999). Language anxiety in men and women: Dealing with gender difference in the language classroom. In: D.J. Young (ed.), *Affect in foreign language and second language learning. A practical guide to creating a low-anxiety classroom.* Boston: McGraw-Hill, 191–215.

Campbell, C.M., Shaw, V.M. (1994). Language anxiety and gender differences in adult second language learners: Exploring the relationship. In: C.A. Klee (ed.), *Faces in a crowd: The individual learner in multisection courses.* Boston: Heine & Heine, pp. 215–46.

Crombie, M.A. (2000). Dyslexia and the learning of a foreign language: Where are we going. *Dyslexia* 6, 112–123.

Downey, D.M., Snyder, L.E., Hill, B. (2000). College students with dyslexia: Persistent linguistic deficits and foreign language learning. *Dyslexia* 6, 101–111.

Ericsson, K.A., Charness, N. (1993). Expert performance: Its structure and acquisition. *American Psychologist* 49, 725–745.

Fisher, S.E., DeFries, J.C. (2002). Developmental dyslexia: Genetic dissection of a complex cognitive trait. *Nature Reviews. Neuroscience* 3, 767–780.

Ganschow, L., Sparks, R.L. (1995). Effects of direct instruction in Spanish phonology on the native-language skills and foreign language aptitude of at-risk foreign language learners. *The Journal of Learning Disabilities* 28, 107–120.

Ganschow, L., Sparks, R.L. (1996). Anxiety about foreign language learning among high school women. *The Modern Language Journal* 80, 199–212.

Ganschow, L., Sparks, R.L. (2000). Reflections on foreign language study for students with language learning problems: Research, issues and challenges. *Dyslexia* 6, 87–100.

Ganschow, L. Sparks, R.L., Javorsky, J. (1998). Foreign language learning difficulties: An historical perspective. *The Journal of Learning Disabilities* 31, 248–258.

Gardner, R.C., MacIntyre, P.D. (1993). A student's contribution to second-language learning. Part II: Affective variables. *Language Teaching* 26, 1–11.

Gierl, M., Rogers, T. (1996). A confirmatory factor analysis of the test anxiety inventory using Canadian high school students. *Educational and Psychological Measurement* 56, 315–324.

Gindrich, P.A. (2002). *Funkcjonowanie psychospołeczne uczniów dyslektycznych*. Lublin: Wydawnictwo UMCS.

Ginsburg, G.S., Silverman, W.K. (2000). Gender role orientation and fearfulness in children with anxiety disorders. *The Journal of Anxiety Disorders* 14, 57–67.

Graziano, A.M., Raulin, M.L. (1993). *Research methods. A process of inquiry.* New York: HarperCollins College.

Hellendoorn, J., Ruijssenaars, W. (2000). Personal experiences and adjustment of Dutch adults with dyslexia. *Remedial and Special Education* 21, 227–239.

Horwitz, E.K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly* 20, 559–564.

Horwitz, E.K. (1999). Preface. In: D.J. Young (ed.), *Affect in foreign language and second language learning. A practical guide to creating a low-anxiety classroom atmosphere.* Boston: McGraw-Hill, pp. xi–xiii.

Horwitz, E.K., Horwitz, M.B., Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal* 70, 125–132.

Horwitz, E.K., Horwitz, M.B., Cope, J. (1991). Foreign language classroom anxiety. In: E.K. Horwitz, D.J. Young (eds), *Language anxiety: From theory and research to classroom implications*. Englewood Cliffs, NJ: Prentice Hall, 27–36.

Jose, P.E., Ratcliffe, V. (2004). Stressor frequency and perceived intensity as predictors of internalizing symptoms: Gender and age differences in adolescence. *New Zealand Journal of Psychology* 33, 145–154.

Jurek, A. (2003). Trudności w nauce języków obcych u uczniów z dysleksją rozwojową. In: E. Jędrzejowska (ed.), *II Europejski Tydzień Świadomości Dysleksji. Dysleksja rozwojowa – rozpoznanie problemu i praca z uczniem dyslektycznym.* Opole: Opolgraf, S.A, 71–132.

Leki, I. (1999). Techniques for reducing second language writing anxiety. In: D.J. Young (ed.), *Affect in foreign language and second language learning. A practical guide to creating a low-anxiety classroom.* Boston: McGraw-Hill, pp. 24–45.

Lowe. P.A., Reynolds, C.R. (2005). Factor structure of AMAS-C scores across gender among students in collegiate settings. *Educational and Psychological Measurement* 65, 687–708.

Lyon, G.R., Shaywitz, S.E., Shaywitz, B.A. (2003). Part I. Defining dyslexia, comorbidity, teacher's knowledge of language and reading. A definition of dyslexia. *Annals of Dyslexia* 53, 1–14.

MacIntyre, P.D. (1999). Language anxiety: A review of the research for language teachers. In: D.J. Young (ed.), *Affect in foreign language and second language learning. A practical guide to creating a low-anxiety classroom atmosphere*. Boston: McGraw-Hill, 24–45.

MacIntyre, P.D., Baker, S.C., Clément, Donovan, L.A. (2002). Sex and age effects on willingness to communicate: Anxiety, perceived competence and L2 motivation among junior high school French immersion students. *Canadian Modern Language Review* 59, 589–607.

MacIntyre, P.D., Gardner, R.C. (1989). Anxiety and second language learning: Toward a theoretical clarification. *Language Learning* 39, 251–275.

MacIntyre, P.D., Gardner, R.C. (1991a). Methods and results in the study of anxiety and language learning: A review of the literature. *Language Learning* 41, 85–117.

MacIntyre, P.D., Gardner, R.C. (1991b). Investigating language class anxiety using the focused essay technique. *Modern Language Journal* 75, pp. 296–304.

MacIntyre, P.D., Noels, K.A., Clement, R. (1997). Biases in self-ratings of second language proficiency: The role of language anxiety. *Modern Language Journal* 47, 265–287.

Meunier, L.E. (1994). Native genderlects and their relation to gender issues in second language classrooms: The sex of our students as a sociolinguistic variable. In: C.A. Klee (ed.), *Faces in a crowd: The individual learner in multisection courses*. Boston: Heine & Heine, pp. 47–80.

Michaljević Djigunović, J. (2004). Language anxiety – An important concern in language learning. In: N. Murray, T. Thornz (eds.), *Multicultural perspectives on English language and culture*. Tallin, London: Tallin Pedagogical University, University of London, 42–51.

Michaljević Djigunović, J., Andraka, I., Brajković, M., Cergol, K., Dombej, K., Kacun, J., Kresojević S., Rakoš, M., Sviben, J. (2004). Foreign language anxiety of Croatian EFL learners': Construction of an anxiety scale. In: D. Kucanda, M. Brdar, B. Berić (eds.). *Studies to honour Professor Elvira Petrović on the occasion of her seventieth birthday.* Osijek: Faculty of Philosophy, 115–126.

Nijakowska, J. (2000). Dyslexia – Does it mean anything to a foreign language teacher? In: L. Peer, G. Reid (eds.), *Multilingualism, literacy and dyslexia. A challenge for educators.* London: David Fulton Publishers, 248–56.

Oxford, R.L., Ehrman, M.E., Lavine, R.Z. (1991). "Style wars": Teacher-student style conflicts in the language classroom. In: S. Magnan (ed.), *Challenges in the 1990s for college foreign language programs*. Boston: Heinle & Heinle, 1–25.

Pappamihiel, N.E. (2001). Moving from the ESL classroom into the mainstream: An investigation of English language anxiety in Mexican girls. *Bilingual Research Journal* 25, 1–8.

Phillips, E.M. (1992). The effects of language anxiety on students' oral test performance and attitudes. *Modern Language Journal* 76, 14–26.

Roberts, T. (1991). Gender and the influence of evaluations on self-assessments in achievement settings. *Psychological Bulletin* 109, 297–308.

Saito, Y., Garza, T.J. (1999). Foreign Language Reading Anxiety. *Modern Language Journal* 83, pp. 202–219.

Sparks, R.L., Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *The Modern Language Journal* 75, 3–16.

Spolsky, B. (1989). *Conditions for second language learning*. Oxford: OUP.

Sullivan, K., Hall, C. (1997). Introducing students to self-assessment. *Assessment and Evaluation in Higher Education* 22, 289–305.

Vinegrad, M. (1994). A revised adult dyslexia check list. *Educare* 48, 21–23.

Vogely, A. (1999). Addressing listening comprehension anxiety. In: D.J. Young (ed.), *Affect in foreign language and second language learning. A practical guide to creating a low--anxiety classroom.* Boston: McGraw-Hill, pp. 106–123.

Young, D.J. (1994). New directions in language anxiety research. In: C.A. Klee (ed.), *Faces in a crowd: The individual learner in multisection courses.* Boston: Heine & Heine, pp. 3–46.

Young, D.J., Kimball, M. (1995). Venerable voices. In: T. Dvorak (ed.), *Voices from the field: Experience and beliefs of our constituents.* Lincolnwood, IL: National Textbook Company, pp. 194–228.