Psychological factors involved in the acquisition of a foreign language among students with visual impairments

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Abstract
This study presents a qualitative analysis of the psychological factors affecting the academic success of students with visual impairments, focusing on the students’ perceptions of their own competence and abilities in learning a foreign language. Interviews were conducted with 28 first-year college students in Israel who met the standard definition of being legally blind. Data were analyzed using a content analysis technique. This was conducted in two stages: first a within-case analysis and then a cross-case analysis. Three distinct themes emerged from the data: (1) self-perceptions of efficacy and feelings of competency, (2) achievement motivation, and (3) locus of control. The analysis of the interviews revealed that each of these three factors influenced students’ experiences throughout their college years, both overall and in regard to their English studies in particular. The factors were interpreted using Bronfenbrenner’s bio-ecological model of human development. Findings suggest that providing emotional and psychological support to students with visual impairments early in their academic studies could prove beneficial by providing them with the necessary tools for coping with the demands and requirements of higher education.

Keywords
Bio-ecological model, locus of control, motivation, self-efficacy, visual impairment

It is becoming increasingly important to enable students with disabilities to attend institutions of higher education (Hess, 2010); as such, institutions must find ways to accommodate the needs of these students. Implementing appropriate accommodations is particularly necessary for students
with a visual impairment (henceforth VI) since they encounter unique challenges (Corn et al., 1995) and employ different methods for acquiring information in the classroom than students with sight (Morrow, 1999). VI refers to an eye or neural injury in the visual system that cannot be corrected by optic means; it limits the ability to accurately identify and detect details from a certain distance (Kadmon, 1989). One of the main obstacles that nonnative English speakers with VI face during their academic studies is acquiring an adequate proficiency level in English, which is often part of the academic requirements in institutions of higher education around the world. Nevertheless, little is known about the foreign language acquisition experiences of people with VIs.

**Language acquisition and VI**

Written language is everywhere; it appears on billboards, in newspapers, on the Internet, and in movies, among many other mediums. In contrast to people with sight, people with VIs are deprived of the casual exposure to the orthographic form of a language. There are contradicting views regarding the role of vision in language development. Two opposing theories dominate the debate. According to nativist scholars (Chomsky, 1980; Landau, 1997), since the process of learning is flexible, lack of vision impairs the acquisition of language only slightly and could be compensated through other means (Urwin, 1984; Webster & Roe, 1998). Studies on the acquisition of language have found only minor quantitative differences between children with VIs and those who are sighted (Bigelow, 2005; Brambring, 2005, 2007). On the contrary, according to the empiricist view (Andersen et al., 1993; Araluc, 2002; Fraiberg, 1977; Preisler, 1997), sensory experiences are of crucial importance in the formation of concepts; therefore, due to their different sensory experience, people with VIs would inevitably have different learning experiences than those of sighted people (Araluc, 2002).

These approaches to language acquisition also affect attitudes toward the acquisition of foreign languages. The prevailing belief in the field of applied linguistics is that learners with VIs follow the same learning patterns as students with sight in acquiring a foreign language, as long as they have sufficient mastery of their native language (Cummins, 1984). Other researchers have claimed that individuals with VIs exhibit a greater capability for acquiring a second or foreign language than sighted individuals. Morrissey (1931), for example, claimed that since blindness forces people to employ their other senses to compensate for their VI, they are in fact better equipped to learn a foreign language than people with sight. Nikolic (1986) claimed that people with VI have great potential to acquire a foreign language due to their enhanced aural ability and intense memory training. Nikolic supports teaching a foreign language to students with VIs within mainstream classes, provided that the instructional material is adapted to their needs and modified such that students with VIs can use their remaining senses to learn.

Conversely, other researchers have asserted that there are substantial differences in the process of foreign language acquisition across individuals with VIs and those with sight. According to Guinan (1997), individuals with VIs have distinct needs from those of their sighted peers which, in turn, direct them toward utilizing different strategies when acquiring a second language. Furthermore, since foreign language instruction in the classroom is primarily visual and largely based on sensory exploration, students with VIs receive a more limited, if not distorted, version of the class material (Munoz, 2004). This barrier, in turn, may cause difficulties in learning abstract concepts in a foreign language.

Another aspect that may impede the acquisition of a foreign language among individuals with VIs involves personal and psychological factors. The common assumption among educators is that knowledge is constructed not only as a result of a person’s developmental level and experiences, but also through cognitive and affective processes such as expectations, attributions, values, and
Social cognitive theory hypothesizes that human achievement is a result of interactions between a person’s behaviors, personal factors (e.g., thoughts, beliefs), and environmental conditions (Bandura, 1997, 2006). An extensive body of literature has established that cognitive abilities and personality traits are important determinants of academic and occupational achievement (Duckworth & Seligman, 2005; Furnham et al., 2002; Noftle & Robins, 2007; Poropat, 2009). Thus, researchers have attempted to identify noncognitive variables that can predict academic performance, including personality tendencies (Poropat, 2009). Inquiry into the role of these variables is important, particularly with regard to learning a language, since, according to Krashen’s (1981) affective filter hypothesis, affective variables play a facilitating role in the successful acquisition of a second language.

Although most academic institutions provide accommodations for the physical needs of students with VIs (e.g., small classes including other students with VIs; assistive technology like closed-circuit televisions), these accommodations do not necessarily ensure a successful and positive learning experience, especially in regard to learning a foreign language. The goal of the current study was to examine the various psychological factors that contribute to, or impede, learning English as a foreign language (EFL) among students with VIs in higher education institutions in Israel.

A qualitative approach was used to explore this topic. Qualitative methods are often used when studying aspects of people with disabilities’ lives because they allow for an examination of the various complexities of their disabilities within a social context and enable participants to provide their own interpretations (Denzin & Lincoln, 1998). Case studies, in particular, enable researchers to make inferences about human behavior based on the unique stories of individuals and allow researchers to uncover the motivations behind participants’ actions and behavior; they can help provide a deeper understanding of the studied phenomenon (Tzabar Ben Yehoshua, 2001).

**Methods**

**Participants**

Participants were recruited in three different ways: (1) VI virtual community—a call for research participants was advertised in an online VI newsletter; (2) academic support centers—a similar notification was sent to support-center coordinators in various academic institutions, with a request to publicize it; and (3) prior acquaintance between one of the researchers, who is the head of the college’s support center, and students with VI. Inclusion criteria were that participants had a mother tongue other than English and were studying in an academic institution.

Twenty-eight first-year college students defined as legally blind (based on social security documentation) participated in the study. Seven participants were completely blind, and the rest were visually impaired. Nine participants were men and 19 were women, ages 20 to 42 years. Initially, a sample of eight students, who had received assistance at the aforementioned researcher’s college support center, were interviewed. These interviews indicated that their past experiences had
a significant impact on their acquisition of EFL. To eliminate the influence of further academic studies on the acquisition of English, it was decided to focus on first-year students, to explore the effect of their past experiences only. In total, 38 students with VI from various institutions were interviewed. However, due to a number of factors that made them inappropriate for analysis in this study, only 28 were included.

**Procedure**

This is a phenomenological, qualitative study employing case study methods. According to Stake (2005), this methodology enables researchers to answer questions such as “how” and “why” more so than “what” and “how much,” providing information on participants’ personal experiences. Informed consent was obtained from participants prior to the study. Following an explanation about the research goals and study design, students completed a demographic questionnaire and a semi-structured interview of approximately 30–40 min with a research assistant. The interviews addressed the students’ experience of learning English, both in secondary school and in college/university. They explored students’ past learning experiences; factors that they perceived to contribute to or hinder the learning process, especially in learning English; expectations and experiences during their academic studies, such as contact with other students, tutors, and lecturers; and use of assistive technologies and provision of accommodations. All interviews were audio-recorded and transcribed. Transcripts were coded and analyzed for themes by each researcher individually, and the coding of all three researchers was compared to minimize the interpretation bias.

Triangulation involved two in-person interviews with the same participants at different times, with similar questions asked in each interview in different ways. The first interview took place during the first semester of participants’ first year of studies, with the aim of gathering information on their past experience with English studies, the attitudes reflected to them by parents and teachers, factors that helped or hindered their acquisition of English, and their expectations for assistive education in college/university. The second interview was scheduled toward the end of the academic year and aimed to examine how students with VI were coping with their academic requirements. Moreover, the second interview sought to learn whether students with VI felt they had received appropriate services in college/university, in particular, comparing the assistance they received in their general courses with assistance they received in their English courses.

Content analysis of the data was conducted in two stages: a within-case analysis followed by a cross-case analysis. During the within-case analysis, each case was first regarded as a comprehensive case, with data analyzed in such a way that the researchers could learn about the contextual variables involved in each specific case. The subsequent cross-case analysis sought to build abstraction and a general explanation that would fit across the individual cases (Yin, 2008).

**Results**

Three distinct psychological themes emerged from the data. The first related to self-perceptions of efficacy and competency among students with VIs. The second theme concerned two types of motivation for achievement: intrinsic and extrinsic. The third theme that emerged was locus of control. Although these themes are applicable to all students studying a foreign language, their impact appears to be magnified for students with VIs due to the additional hardships they face due to their impairment.

Below, we present several quotes from participants, representative of the responses that touch on these three themes.
**Theme 1: self-efficacy**

In this study, self-efficacy was a key aspect that most participants mentioned as affecting their ability to cope and succeed in their English studies. For example, despite potential hardships, one interviewee named Sivan insisted on enrolling in a mainstream university program and fulfilling her dream of studying neuroscience:

I didn’t want *this* [being in a special college program for the visually impaired] to be the reason I don’t study neuroscience, something that I have always wanted to study. So, I took the entrance exams—which were very difficult for me, because I couldn’t really see . . . But I never gave up. I told my parents, that’s what I wanted to do in life.

When Sivan was asked whether she is able to cope with the demands of her academic studies, she answered without hesitation, “Yes, definitely, yes!” Sivan’s high level of self-efficacy was also evident in her perception of her competence in English. She believed that her English skills did not pose a problem while taking the college’s compulsory English course.

Self-efficacy levels are situational and develop around specific areas in life; thus, a high level of self-efficacy in one realm may not necessarily indicate the same level in another (Kaniel, 2006). An example of the situational effect of self-efficacy was illustrated in Yaffa’s interview. Yaffa had finished her high school studies with an average of 100.4. The only exception to her academic performance was English, a subject for which she did not take the matriculation exam. She is a self-proclaimed perfectionist, who said she can achieve anything she wants to, provided that she makes the necessary effort. English, however, was the one subject that made her feel unsure and anxious:

Once I start something, I always finish it, and do it perfectly . . . I knew I was capable and smart, and I managed. English, on the other hand, was something I always had trouble with. I think I just don’t have the ability to learn other languages. What can I do . . .? Not only that, but I really felt physically ill every time I had to take an exam in English. I just didn’t feel like I could do it perfectly like everything else.

Another example is Limor, who was born visually impaired. Despite her disability, she has never encountered problems with academic achievement except when it came to learning English:

Everything was just so easy . . . I have a history of success, so I didn’t have any misgivings or anxious thoughts about not succeeding in university . . . English, on the other hand, was a bit different. Although I was very sure of my abilities in all the other courses, I felt less confident in English. I wasn’t sure I could actually pass the exams or study without any help . . .

Self-efficacy was touched on by many participants, but their self-efficacy in academic studies often did not apply to acquiring EFL.

**Theme 2: dynamics of motivation**

In this study, participants exhibited different patterns of motivation for learning EFL, as well as different degrees of success. An example of intrinsic motivation for English language learning was described by Shira:

I’ve always wanted to study English. I’ve always loved English . . . I think it’s a great language, and I just love listening to English and reading books. I’m constantly curious to learn more about the language.
Although Shira was born blind, she believes that her teachers and parents need not be lenient with her because of her impairment. She learned Braille both in Hebrew and English, and found it to be very useful for maintaining her independence and expanding her knowledge without additional assistance.

Another example is Nechama, whose love for English motivated her to learn more about the language:

I always loved English. I found the language so interesting and exciting. I always want to know more and learn more about the language. My dream was to study English at the university, and to be an English teacher . . . I was actually quite looking forward to finally learn English in a formal setting.

When asked about her other studies, Nechama stated that she had minimal motivation to succeed. With regard to English, however, she had high intrinsic motivation to learn.

In contrast, another interviewee, Ziv, only understood the necessity of her English course for completing her bachelor’s degree once she was confronted with the consequences of neglecting her English studies. After several attempts to be exempted from English studies in college, she finally accepted the fact that without English, she would not be able to graduate and continue on to her master’s studies:

Now I understand that if I pass the English course, my options for continuing to a master’s degree are open. Without English, I can just throw away my B.A., because I can’t do anything else without it. I study English only because I need it, I’d have preferred to just not deal with it!

Ziv’s motivation for learning English is clearly an extrinsic one: the instrumental value of completing her English requirements. Indeed, her continued attempts to be exempted from her English studies highlight her extrinsic motivation.

**Theme 3: locus of control**

Participants often attributed the difficulties they encountered in their studies to external factors, ranging from their disability to the unaccommodating school system, and even to the English language itself. Many expressed certainty that if not for their impairment, they would have been able to acquire English more easily and succeed in their studies.

Limor, for instance, excelled in her studies and was in her university’s excellence program for psychology and biology. She noted that she never encountered any academic difficulties that she could not cope with on her own. Nevertheless, when asked about her English studies, she made quite a different claim:

I needed the English texts to be enlarged, unlike other texts in Hebrew. I think that the problem is with the English language. I’m good at everything else, so the troubles I had in English were probably because of the fact that English is a foreign language. I don’t think it has anything to do with me. I tried very hard, but the impairment made it difficult to properly learn English.

Limor’s case demonstrates the influence that a perceived external locus of control has on the motivation to learn. She believed that her difficulties in learning English were the result of factors beyond her control, unrelated to her own actions and beliefs. In contrast, Ziv exhibited a clear internal locus of control, whereby she takes full responsibility for the difficulties she encountered while learning English. Ziv had transferred to three different high schools for various reasons, but in every case, she took responsibility for her failures:
I couldn’t cope with boarding school. I love my home and can’t be away from it. I’m spoiled that way . . . When I transferred to my second school, I left it because I couldn’t adjust to the requirements of the major that I chose.

Ziv described herself as an assertive, and even stubborn, person. She decided that English posed too much of a challenge and necessitated more efforts than she wanted to invest; thus, she did everything she could to be exempted from English studies. As a consequence, she finished high school with an incomplete certificate because she neglected to take the English matriculation exam. In university, she once again tried to be exempted from English studies. Unlike some other participants, Ziv was fully aware that she had given up on learning English and did not blame anyone or anything else besides her own character, personality, and choices.

Shay, for example, attributed the difficulties he faced in his studies, and specifically in English, to his VI, which he said limited his exposure to English through popular media, commonly part of how other nonnative speakers acquire English. He also blamed his school for not providing him with the assistance and facilities he needed and for not believing in him:

They are mostly to blame. Everyone always told me I have great potential, but they didn’t know how to realize my potential . . . They didn’t have high expectations of me . . . the school didn’t make the necessary adjustments to provide me with what I required. The school used a teaching method and program that didn’t fit my abilities or disabilities, which is why I failed. In English I had difficulties because of my impairment. I couldn’t watch movies and TV like everybody, so I wasn’t exposed to the language as I could have been.

Although Shay had dropped out of high school, he made up his requirements and was presently studying law at a university. Despite this success, he attributed blame for the difficulties he encountered to others.

Discussion

To the best of our knowledge, this study is the first to explore various psychological factors influencing the experience of students with VIs in learning EFL. Students with VI must cope with the challenges of acquiring a foreign language along with the difficulties associated with their impairment, such as limited exposure to the orthographic form of language. Analysis of participant interviews revealed three main themes: self-efficacy, motivation, and locus of control. Each of these factors influenced participants’ experiences throughout secondary school and during their college studies, both overall and in English courses in particular.

The findings indicated that an influential factor in increasing motivation for learning in general, and for English in particular, was self-efficacy. In his original theory of behavioral change, Bandura (1977) defined self-efficacy as the “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Thus, self-efficacy refers to the expectations and beliefs that people hold of themselves in regard to their achievement ability; individuals who are similar in objective aspects may differ in their perceptions of themselves and their perceptions about how others view them, which may subsequently lead them to exhibit different types of behavior (Bandura, 2012; Bong & Skaalvik, 2003).

Academic self-efficacy reflects individuals’ confidence that they can successfully perform a given academic task at a designated level (Bandura, 1997). Students with different self-beliefs have been shown to exhibit varying levels of engagement in school, cognitively, socially, and emotionally. Indeed, educators have long recognized that students’ convictions regarding their ability
to succeed in academic activities affect their performance (Pajares & Schunk, 2005; Usher, 2009; Zimmerman, 2000). Numerous studies examining self-efficacy in education have found that students’ beliefs about their capabilities are linked to achievement in various academic areas (Usher & Pajares, 2006). Furthermore, students who believe in their academic abilities have been found to be more interested in schoolwork, have higher academic goals, are more willing to exert effort to succeed, and display greater resilience when encountering difficulties during completion of tasks (Bandura, 1997; Pajares & Schunk, 2005).

These findings are in accordance with theoretical frameworks outlining the contribution of self-efficacy in motivating students (Bandura, 1977). In this study, one area where deficits in self-efficacy were most pronounced was in participants’ perceptions of their own competence with regard to studying English. Overall, even participants who considered themselves to have high levels of self-efficacy in other academic domains expressed feelings of incompetence or an inability to successfully learn English. Regardless of whether or not these feelings were justified, most students in this study found learning English to be a task too difficult to handle, which subsequently led to increased levels of stress and anxiety. These feelings, in most cases, resulted in a decreased motivation for learning English and, thus, to low academic achievement in this area.

Another factor within the theme of motivation that emerged from the data was the type of motivation that participants exhibited. In the past few decades, the field of educational psychology has investigated different motivational processes to explain students’ activity, determination, and performance in school (Meece et al., 2006). The focus on motivation stems from the belief that people have an inherent tendency to learn and internalize their physical and social surroundings (Niemiec & Ryan, 2009; Vansteenkiste et al., 2006). Motivation is especially important for acquiring a new language, since the task of learning a new language often requires years of practice and determination (Noels et al., 2001).

One theory that has been useful in explaining variation in students’ motivation for learning is self-determination theory (SDT), which focuses on the factors that facilitate or impede individuals’ growth processes (Deci & Ryan, 2000; Niemiec & Ryan, 2009). According to SDT, motivation has to do with a learner’s affective characteristics, which direct his or her learning behavior in terms of the choice to learn, as well as the intensity and duration of learning (Dornyei, 2009). SDT distinguishes between different types of motivation based on the reasons or the goals that lead one to take action. The most basic distinction is between intrinsic and extrinsic motivation. Intrinsic motivation is defined as the desire to partake in an activity for the pure satisfaction derived from it, rather than for some unrelated and separate purpose (e.g., to earn money) (Ryan & Deci, 2000). Extrinsic motivation refers to engaging in an activity to attain some extraneous outcome, namely, for its instrumental value (Ryan & Deci, 2000; Vansteenkiste et al., 2010). According to SDT, there are different types of extrinsic motivation, some of which are more internalized and self-determined than others (Deci & Ryan, 2000, 2008, 2012; Gange & Deci, 2005, 2000; Vansteenkiste et al., 2006).

Empirical evidence suggests that motivation is crucial to both the learning rate and success of acquiring a second or foreign language (L2), particularly when examining language learning in class (Dornyei, 2003; Noels et al., 2000; Vandergrift, 2005). Kang (2001) examined the motivational bases of Korean EFL learners and found that both intrinsic and extrinsic motivation were associated with achievement. On the contrary, Pae (2008) examined the role of motivation in learning EFL in Korean schools and found that only intrinsic motivation significantly led to achievement.

Participants who expressed having intrinsic motivation for learning English often reported a higher competency in the language compared with those with extrinsic motivation, who were only motivated to learn English to “get ahead” (i.e., earn their academic degree). The contribution of intrinsic motivation to learning English has also been identified among sighted students (Dornyei,
In this study, it appeared that learning English for its own sake helped participants better cope with the increased hurdles they encountered as students with VIs, including the limited means available to them for acquiring the language.

The final theme that emerged from the data was locus of control. According to cognitive motivation theorists, behavior is determined to a greater extent by individuals’ beliefs and thoughts than by their reactions to past experiences (Mamlin et al., 2001). One theory that explains the associations between various cognitions and achievement is Rotter’s social learning theory (Rotter, 1966, 1990). According to Rotter, thoughts and beliefs, especially one’s beliefs regarding the cause of success or reward, mediate a person’s behavior. Rotter’s term “locus of control” refers to the degree to which individuals believe events to be under their own control (internal locus) or under the control of outside forces (external locus; Rotter, 1966, 1990).

Locus of control has been found to be an important variable for academic success (Anderson et al., 2005; Bursik & Martin, 2006; Gifford et al., 2006; Morris et al., 2005). Research indicates that locus of control is related to learning, both in regard to promoting motivation to learn and in one’s level of self-efficacy (Kaniel, 2006). Students with an internal locus of control often believe that they are capable of independent learning, show greater initiative in developing academically, have a higher motivation for learning, and express a greater ability to successfully accomplish their academic goals (Gifford et al., 2006). Most importantly, they perceive the outcome of a task as dependent on their own actions and efforts rather than on external and uncontrollable factors (Zimmerman, 2000). On the contrary, those with an external locus of control may, for example, expect teachers to be responsible for outcomes of learning tasks and for solving issues that arise (Smith & Mihans, 2009).

An internal locus of control, namely, a belief that one’s own behavior or personal characteristics (i.e., ability, effort) influences one’s outcomes, was found to affect students’ attitudes toward learning English (Mamlin et al., 2001). Individuals with VIs who possessed an internal locus of control exhibited greater motivation in pursing their academic studies, reported higher levels of self-efficacy, and generally noted having better academic achievements.

The contribution of psychological factors to participants’ academic success in English studies can be interpreted using Bronfenbrenner’s bio-ecological model of human development (Bronfenbrenner, 2001, 2005). The bio-ecological approach offers a framework for understanding the effects of disability on development by emphasizing the interaction between a person’s individual characteristics and his or her environment. In addition, the model highlights an individual’s strengths rather than his or her weaknesses. Moreover, this model proposes that people have a role in changing their contexts, either by simply being present in a particular environment or through their reactions to and interactions with others in their immediate surroundings.

Importantly, the model asserts that individuals’ behavioral tendencies are most likely to direct their future development, either by motivating them to take action or sustain a current action or, conversely, by serving as an obstacle to development (Bronfenbrenner, 2001; Bronfenbrenner & Ceci, 1994, 2005).

Implications

Psychological variables are important factors that influence the learning a foreign language, and thus, it is imperative to consider them when working with students with VIs. The current research findings suggest that enriching students’ emotional and psychological strengths early on in their studies could be beneficial, especially for students with VIs, as it provides them with the necessary tools for coping with the demands and requirements of higher education. Therefore, we suggest that academic institutions focus on students’ affective factors and promote personal empowerment.
with the goal of enabling students to take responsibility for their studies and confront the difficulties they may face during the process of acquiring a foreign language.

**Limitations and future directions**

This study was conducted with a relatively small number of students from the higher educational system in Israel and did not account for gender differences. In addition, the study did not examine whether causal relations existed between the different factors. As the first study of its kind, this research is a starting point for future studies that should employ longitudinal designs and recruit greater numbers of participants to better understand the influence of psychological factors on academic success. Furthermore, examining additional measures may provide a broader picture of the psychological factors responsible for participants’ academic success.

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