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Introduction

Dear readers

There are no major or minor, main or marginal topics in pedagogical or even general research. What makes a research then? Is it the point of view that is important, or individual perception or personal interest of the researcher? Or is it a manifestation of the gradual growth of the society and its mental maturity to solve the problem? From originally marginal research tasks and confusing research terrain, serious issues involving the whole society can arise.

In the social sciences, should a researcher, or rather does the researcher has to respond to the current social, political or economic situation? Is it a duty or a good will, a superficial effort or a deep interest?

The direction of pedagogy towards socially important topics is evident from research works that deal with inclusion, transdisciplinary issues of pedagogical phenomena, or addresses issues of intercultural education in the context of the refugee crisis. We would also expect an emergence of research activities in the field of environmental education, the use of new technologies in schools, cultural diversity in education, operational literacy and identifying hidden strategies in the learning process, application of cognitive science, developing soft skills and functional literacy, networking and collaborative learning and teaching, using graphic facilitation and motion design in education.

What are the strategies for choosing the research topic; is it a qualification thesis or an establishment of the long-term research task of one's workplace? Rather than a closed circle, it is important to strive to create a spiral in which another level implies a certain impact on the subject under consideration. Respecting the factors that should be perceived as a normal part of the process can significantly influence this choice. The first step should be the academic freedom of inquiry, the desire to know and learn as much as possible about the phenomenon. No less courageous is the need to embark on the exploration of sensitive and taboo themes.

In addition, a utilitarian point of view must be considered - the financial background of commercial research, the social assignment, or the possibility of achieving the required assessment of scientific performance.

It is necessary to ask whether current research activities can influence the way society is viewed and contribute to addressing its current issues, including negative phenomena, or cyclical production of stereotypical recommendations for practice that are not innovative and essentially resign to search for ways to quality education for the future.

Editors

Articles

The Relation among IQ, Study Achievements and Motivation to Study Teaching Programmes in the Educational Fields of Study

Radka Skorunková, Klára Svobodová

Abstract

This research study deals with the relation between intelligence quotient (IQ), success rate, and motivation for study for students of education at the Faculty of Education at the University of Hradec Králové (UHK). The focus is on the relationship between IQ and study achievements and making the connection to academic requirements of students who have not met these requirements within the first two years of their studies. Furthermore, this study determines the motivation to study teaching programmes and its relation to the measured values of IQ. The results of the research show that study preconditions, based on academic abilities, are not the key criteria for acquiring applicants who are motivated to start their teaching career after graduating from the Faculty of Education.

Key words: general intelligence, IQ, student of the Faculty of Education, study results, study failure, motivation.

Vztah mezi IQ, studijními výsledky a motivací ke studiu učitelských programů ve vzdělávacích studijních oblastech

Abstrakt

Tato výzkumná studie se zabývá vztahem mezi inteligenčním kvocieniem (IQ), mírou úspěšnosti a motivací ke studiu u studentů pedagogiky na Pedagogické fakultě Univerzity Hradec Králové (UHK). Zabývá se vztahem mezi IQ a studijními výsledky a vztahuje je ke studijním požadavkům kladeným na studenty, kteří tyto požadavky v prvních dvou ročnících studia nesplnili. Studie dále popisuje motivaci ke studiu pedagogických oborů a její vztah k naměřeným hodnotám IQ. Výsledky výzkumu ukazují, že studijní předpoklady založené na studijních schopnostech nejsou klíčovým kritériem pro získání zájemců, kteří mají motivaci vydat se po skončení studia na Pedagogické fakultě na pedagogickou dráhu.

Klíčová slova: obecná inteligence, IQ, student pedagogické fakulty, studijní výsledky, studijní neúspěch, motivace.

Introduction

From the position of academic staff, while teaching at universities, it is easy to succumb to certain doubts regarding the academic ability of university students nowadays. **The trend of the increasing number of university students** enrolled in the last two decades has contributed to these doubts. **Nowadays, more than a quarter of the population, aged 20–29, in the Czech Republic study at university.** In 2011, 27 % of young people enrolled as university students while in 2012 the number increased to 28 %. When comparing these statistics to 2001, when there were 12 % of university students within the same age group, we can see that the amount of university students has more than doubled. However, compared to other European countries, the Czech Republic is at the low end of the scale considering the number of people with completed tertiary education. In 2008, researchers found that the number of people with tertiary education in the Czech Republic was 15 % (ČSÚ, 2014–Czech Statistical Office). Therefore, the Czech Republic keeps suffering from the lack of tertiary educated people despite the increase in enrolment. The trend of accepting more university students is expected to continue to grow. This growth of students has resulted in **higher level requirements for teachers who work with larger groups of students at various levels of study preconditions, motivation, attitudes towards studying, etc.** The experience of many teachers is well captured in a quote of an author pondering over the problems of teachers' profession-

alism at the present time: *'The fact that the mentality of students has changed strongly, their study habits, morale, behaviour at lectures, seminars and exams (if they attend them at all), is more than evident...'* (Koťa, 2010, p. 68)

The aim of this research is to describe **how the overall trend of the increasing number of university students has been reflected in the level of study preconditions** of students at the Faculty of Education of the University of Hradec Králové. It focuses on the determination of IQ scores which is considered to be a reliable indicator of general intelligence. In addition, there are four main research questions which are presented in order to verify the doubts concerning the study potential of these students:

Research question no. 1: What is the structure of IQ distribution in the student population of educational fields of study at the Faculty of Education at UHK? The main focus being to understand the real potential of the students in order to avoid both unnecessarily pessimistic and overly optimistic illusions. We assumed that the students of pedagogy are an inhomogeneous group in respect to their IQ scores. We were interested in the ratio of the amount of students in individual value zones of IQ.

Research question no. 2: Is there a statistically significant relationship between IQ and study results of the first and the second year students in the field of education? Generally, it is assumed that it is possible to predict the study results based on IQ. The question is whether or not this assumption is currently valid regarding the specific conditions of education at the Faculty of Education of UHK.

Research question no. 3: Is there a connection between IQ and study failure of university students who were not successful at meeting the specific requirements? During the two years of work with our students, the researchers noticed that 18 % of the students did not meet the study requirements. Therefore, the question focused on whether their study failure was related to the lack of study preconditions. Presumably, there is a potential solution to prevent these failures in the future after identifying the IQ connection.

Research question no. 4: Does a statistically significant relationship exist among IQ, study results and motivation to study in pedagogical programs? We tried to describe the students' motivation to study in the pedagogical branches. We wanted to determine the percentage of students that chose the pedagogical branches of study because they see teaching as their future profession. We were also interested in the relation between study preconditions, study results and motivation to become a teacher by profession.

1 Theoretical Basis of IQ Measurement

Intelligence, which is manifested in solving various problems, can generally be defined as a one's individual level and quality of mental operations. Intelligence is a broad term, and it cannot be fully identified with the Intelligence Quotient (IQ), which is the value measured by the tests of intelligence (Plháková, 2010).

In our study, we defined the value of IQ as the measured result of the level of General Intelligence (the so-called “g” factor). General Intelligence expresses the individual’s ability to adapt their thinking to new real-life conditions and tasks that are not possible to be gained through learned skills. The model of the General Intelligence has had nearly a century long tradition in psychology. Spearman (1927) described General Intelligence as a part of his two-factor theory of intelligence. Recent research confirming the existence of the general factor is based on a statistical model **of positive correlations between different types of IQ tests** (Mackintosh, 2011). The individual tests of intelligence measure a different type of cognitive functions, for example, verbal, spatial, perceptual (reasoning) capabilities, perceptual speed or memory recall. An individual can exhibit a different performance level in their utilisation. However, a model of positive correlations among these tests shows that a common component, which we can call general intelligence, affects the individual’s performance in these various types of tasks. **A connection between General Intelligence and aspects of brain efficiency as an information processing system has been considered** (Deary, 2000). The aspects of brain efficiency include the speed and precision with which the information is transmitted from one part of the system to another. One of the proven cognitive functions which positively correlates with General Intelligence is the **effectiveness of working memory**.

Based on IQ, study results at the university level can be well predicted. The correlation between IQ test scores and a number of different indicators of success in education ranges from 0.40 to 0.70 (Mackintosh, 2011). It is likely that performance at school and on intelligence tests are based on a similar type of cognitive abilities. Svoboda (2001) states that a reliable predictor of study success are multidimensional intelligence tests, in particular.

On the basis of the intelligence measurement, it is possible to anticipate the study results, but **IQ corresponds only minimally with the success in professional careers and with use in practical life**. Although above average intelligence gives students an advantage in managing their study requirements, it does not automatically ensure successful academic performance and subsequent professional career. This also depends on social intelligence, motivation, and other personal characteristics.

The **relationship between intelligence and creativity** which is important during university studies, during independent work on seminar activities for example, is significant. Future teachers are also going to apply creativity in their profession. According to Nakonečný (2009) highly creative individuals tend to be very intelligent, but intelligent people do not always have to be characterized by a high level of creativity. Szobiová (2001) examined the relation between intelligence and creativity of high school students in their final year and found them as overlapping mutually interconnected aspects of intellectual functions.

To measure IQ in our study, we used the **Vienna Matrix Test (VMT)**, which is designed to detect the level of nonverbal intelligence of adolescents and adults. The VMT

is designed to be a time-saving and reliable method for the estimation of intellectual level. This is a one-dimensional test designed to measure a specific component of intelligence. It stems from the theory of General Intelligence and, therefore, measures the "g" factor. The test is based on the **ability to form conclusions, reveal mutual causality (connection), and infer about relations**, which are perceived as the basic dimensions of the General Intelligence factor (Forman, 2002).

2 Research Results

2.1 Target Group

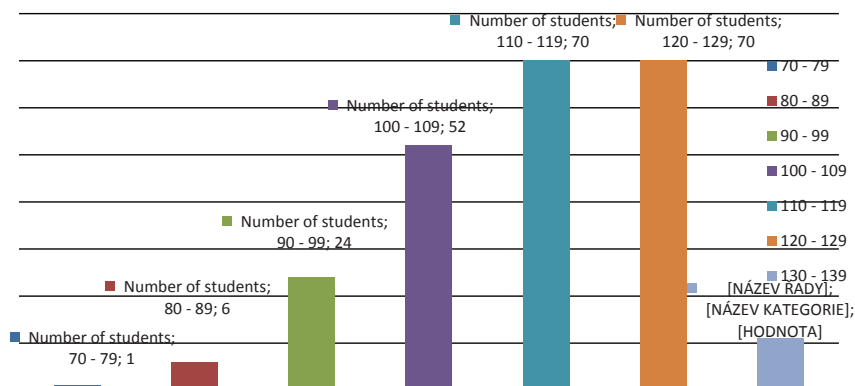
Full-time students of the pedagogical programs at the Faculty of Education of UHK were the target group. The measurement of intelligence took place within the framework of general psychology seminars in the first year of study during academic year 2012/13. We can consider the test group to be a representative sample of students of pedagogy, who had registered for 10 of the 16 psychology seminars within the study of compulsory pedagogical-psychological ground. More than half of all of the students in the first year of studies participated in the testing. The selection of students was not affected by voluntary interest in taking part in the intelligence test. The groups in which the testing took place were randomly selected.. Of the selected test groups, all of the students who were present in the classroom filled in the test. Students were guaranteed anonymity and also impartiality of their teachers. The results of the IQ test had no influence on the performance assessment in the particular subject. Those who were interested could learn their own value of IQ obtained in the test and were informed about the principles of the intelligence quotient interpretation at the same time.

2.2 Distribution of IQ in the Tested Group of Students

Research question no. 1 was the first to be solved: What is the structure of IQ distribution in the student population of educational fields of study at the Faculty of Education at UHK? In the first year of the full-time study program, 234 students participated in the Vienna Matrix Test. The majority of students (151 persons; 64.5 %) achieved the results in the above-average intelligence zone (IQ higher than 110). Average intelligence (IQ from 90 to 109) was detected in 76 of the participants (32.5 %) Below-average intelligence (IQ of 89 and lower) was measured in 7 participants (3 %).

Graph 1

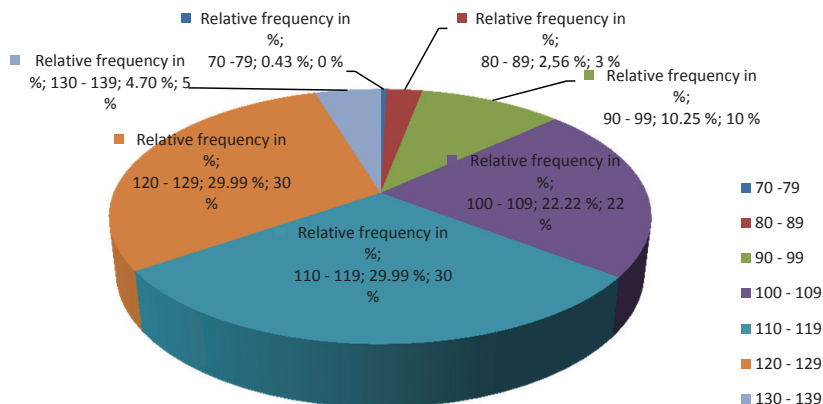
Results of the intelligence test according to the number of students reaching the IQ in individual zones separated by 10 points (n = 234)



If the tested students were a representative sample of the whole population, the results of the IQ measurement would resemble the layout of the Bell curve. Sternberg (2001) states that 68 % of the population reaches the IQ in the range of 85 to 115 points which is the area of the population's average. Approximately 14 % of the population has an IQ score in the range of 70 to 85 points, while another 14 % ranges in the interval from 115 to 130 points. Around 3 % of the population attain an IQ score of less than 70, and another 3 % of the population have the IQ higher than 130. According to the Bell curve of normal distribution, we should expect that from a total of 234 persons tested, approximately 50 % of participants (117 students) will reach an IQ score higher than 100. In the group of participants it was much higher in fact—a total of 203 students. In terms of the IQ value, the population of students of pedagogical branches of the Faculty of Education at UHK is not identical to the whole population.

Graph 2

Percentage representation of tested students in individual IQ value zones separated by 10 points (n = 234)



We consider this as a positive solution to the research question no. 1. The fact that the tested students of pedagogical branches at faculties of education produced a higher representation of people with above-average intellectual preconditions than in the whole population. **The students with above-average general intelligence outnumber the students with the average below-average values of IQ.** We found considerable potential in intellectual preconditions of our students. However, it is apparent from the charts that we found a minority of students with below-average IQ scores. The borderline results could have been caused by non-intellectual factors. In fact, this could concern gifted students whose performance on the test was distorted by random influences.

2.3 Relation between IQ and Study Results in the 1st and 2nd Years of Study

We verified the second research question by the calculation of the Pearson correlation coefficient between IQ and values of study averages. The research question no. 2: Is there a statistically significant relationship between IQ and study results of the first and the second year students in the field of education?

We observed the study success of the students who completed the intelligence test during the first two years of their studies. We determined the average study results obtained from the entire study during the course of the school year. It concerned the study results in academic year 2012/13 in the 1st year (n = 225), and for the same students

in academic year 2013/14 in their 2nd year ($n = 206$). In both the years, the number of the observed university students declined because the average study result of some students were not detected due to study interruption, graduation, etc. The results of the correlation coefficient calculation are summarized in table 1.

Table 1

Relation between IQ and study results

Observed variables	Correlation coefficient r	Statistical significance
IQ and study results in the 1 st year ($n = 225$)	-0.256	$p < 0,05$
IQ and study results in the 2 nd year ($n = 206$)	-0.207	$p < 0,05$
Correlation of study results in the 1 st and 2 nd years ($n = 206$)	+0.454	$p < 0,01$

The relationship between IQ and study results was confirmed in the 1st and 2nd years of studies. Therefore, we can conclude that IQ has a predictive validity of study results in conditions of education at the Faculty of Education of UHK. The negative correlation value suggests that the higher the IQ the lower the obtained marks at exams (the best study average is 1, the worst is 3).

The correlation between IQ and school results that we have determined is however lower than the usually mentioned values of 0.40 to 0.70 (Mackintosh, 2011). The results at universities are affected by many different variables—the expectations of individual teachers, lack of students' time when preparing for exams, performance motivation, their own value system, study styles, personal affairs, extracurricular activities, etc. According to the correlation value between the study results in the 1st and 2nd years of study (0.454) we assume that the reception of better or worse study results is tied to the students' personal characteristics, rather than to random external influences.

2.4 IQ and Study Failure

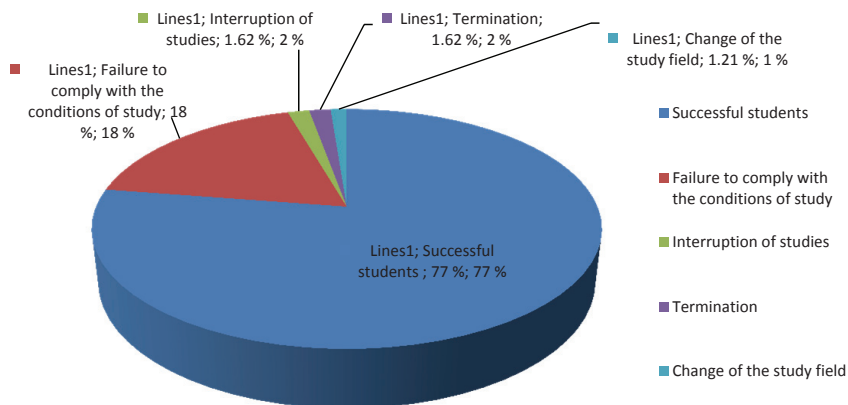
The solution of the research question no. 3: Is there a connection between IQ and study failure of university students who were not successful at meeting the specific requirements?

The relatively high rate of study failure is related with the increasing proportion of people studying at universities. From this perspective, the first year of study can be considered as the most risky period. The high number of students in classes makes orientation difficult, worsens the establishment of personal relationships between students and teachers, limits the possibilities of individual approach, and weaken students' beliefs about their study success (Jakešová, Hrbáčková, 2011). During the study implementation we observed a large part of the students' initial problems with fulfilment of study requirements. As for the failure criteria, based on which we put the students in

the unsuccessful group, we consider any disruption of the flow of commencing studies–graduation, interruption of studies, change of the study field, failure to comply with the study requirements in a given year (lack of credits). We evaluated the fail rate in the course of the first two years of the study.

Graph 3

Success rate in the first two years of study (n = 234)



Graph 3 shows that the main phenomenon associated with the study failure rate was the **failure to meet study requirements. This was the problem with 18% of the students.** Thus, this group consisted of students who did not obtain the prescribed number of credits and did not pass exams. We were looking for connections between the study fail rate and the value of IQ. We compared the average values of IQ in the groups of successful and unsuccessful students.

Table 2

Comparison of average IQ in successful and unsuccessful students

	Average in unsuccessful students (n = 57)	Average in successful students (n = 177)
Average value of IQ	111	113

Table 2 shows that the average IQ in the group of unsuccessful students reaches a similar value as the average IQ in the group of successful students. **The failure to meet the study requirements can be considered as a result of the other variables, not of IQ.** Although study preconditions expressed by the IQ value predict the academic per-

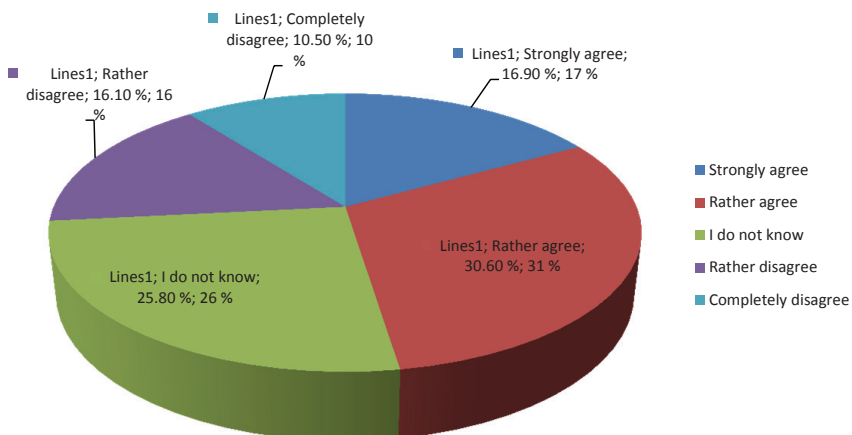
formance in terms of received evaluation, they do not, however, distinguish between students capable and incapable of meeting the prescribed study requirements. This large group of unsuccessful students deserves attention because teachers can identify the causes of their failure and can help them to overcome their difficulties.

2.5 IQ and Motivation to Study Pedagogical Branches

In our study, we have determined the motivation to pursue the career of a teacher and looked for connections with study preconditions and study results. At the end of the summer term of the first year of studies, the students were asked ($n = 124$) whether they wanted to teach after graduation. The graph 4 shows the answers.

Graph 4

The agreement rate with the statement "After graduation, I definitely want to teach" ($n = 124$)



Less than half of the questioned students (47.5 %) answered positively about accepting the teaching profession (answers "strongly agree" and "rather agree"), while about a quarter of the students (26.6 %) expressed a negative attitude (answers "rather disagree" and "completely disagree") towards the opportunity to become a teacher after graduation. Another quarter of students (25.8 %) is uncertain or undecided so far (answer "I do not know") in this matter, which is a considerable number of potential teachers if they started to lean towards this profession during the course of their studies.

Results of the research question no. 4: Does a statistically significant relationship exist among IQ, study results and motivation to study pedagogical programs?

We verified the connection of motivation for the teaching profession with study preconditions and study results by calculating the Pearson correlation coefficient. Table 3 shows that the **motivation to accept the teaching profession does not have a statistically significant correlation either to the study preconditions or the study results.**

Table 3

The verification results of the connection of motivation to accept the teaching profession (in the table hereafter referred to as “motivation”) with study preconditions (IQ) and study results

Observed variables	Pearson correlation coefficient	Statistical significance
IQ and motivation (n = 103)	−0.003	Insignificant
Study results in the 1 st year and motivation (n = 103)	−0.092	Insignificant
Study results in the 2 nd year and motivation (n = 103)	−0.072	Insignificant

We can state that neither IQ nor study results are a reliable indicator of whether the student heads towards the teaching profession. Probably these two variables do not have a major impact on real employment of an individual in the education system as a variety of personality factors and influence of social environment are involved in the process of becoming a teacher.

Conclusion

The results of the study show that the **future teachers, the current students of pedagogy at the Faculty of Education at UHK, compose a highly inhomogeneous group in terms of study preconditions.** The students with above-average intellect still prevail but many students with average and below-average IQ are also present. In the target group, a statistically significant correlation exists between IQ and study results. We can conclude that **higher general intelligence leads to better evaluation in exams.** We consider it to be important for teachers to be able to retain attention to talented students who still exist in the higher representation, even in mass education.

The value of IQ, however, did not confirm our beliefs to be a crucial indicator on which we could predict the study failure, i.e., inability of a student to meet the prescribed study requirements. **Study failure is influenced by other factors than IQ**—we can think that of personality traits, motivation, or external influence (social environment, current life situation of the student and other). This fact suggests that it would be possible to prevent unnecessary study failures if teachers had better conditions for applying an individual approach to students (e.g. smaller study groups). This does not

exclude the fact that good teachers would benefit from these “failed” students if the teachers paid due attention to them.

Furthermore, it turns out that **neither IQ nor study results are a reliable indicator of whether the student heads towards the teaching profession.** From the point of view of the general intelligence, highly gifted, average, and below-average individuals exist among the large part of students who decided not to enter pedagogical practice already during their studies.

In pedagogical fields of study, many students have long been present who are determined not to enter the pedagogical practice, and they really do not wish to start teaching after graduation. Study at faculties of education is only an ‘alternative solution’ for this group of students. It primarily is a way to get a university diploma. This phenomenon has had increasing incidence in the Czech Republic during the last two decades. While in the late 1990s, approximately 12 % of the students stated that they did not want to teach after graduation, nowadays 20 % to 30 % of students hold a negative attitude towards teaching (Havlík, 1997; Průcha, 2002; Urbánek, 2005; Juklová 2010; Wernerová, 2013). The motivation to study pedagogical fields is diverse and varies also over time. Juklová (2013) identified in new teachers three main categories of motives taking part in choosing their profession: work with children, developing expertise, and acquiring university education (obtaining a diploma). Svatoš (in Wiegerová et al., 2012) compared the motivation of students in the Faculty of Education of University of Hradec Králové in 2000 and 2010. While in 2000 the dominant motive was the factor of an interesting and “good” profession (diversity of the teaching profession), and the resulting benefits (freedom of decision-making, holidays). Ten years later the work with children and the improvement of the field knowledge were identified as the predominant motives. The perception of teaching as a good and interesting profession lasted but with lower importance than in year 2000. Students, who were starting in 2010, saw the teaching profession as a foundation for personal development and opted for university studies to obtain university qualification, and currently, as a means of better prospects for the labour market.

Some of the students who graduate from the faculties of education with no interest in the teaching profession will likely remain there. At present, it concerns about a quarter to a third of all students. **Most of our students fall into the category of those interested in the teaching profession or into the category of the undecided. By offering a quality undergraduate study, we can support the professional development in the direction towards a teaching career with a large group of students, regardless of their study preconditions or study results.** This statement is supported by the results of the research question no. 4.

The criteria by which to select candidates to study pedagogical fields represent one of the topics for further discussion of this problem. It seems crucial for us to find out about motivation and personal attitudes of candidates towards the teaching profession.

This criterion is much more difficult to measure and subsequently compare candidates with each another. However, we deem this as an incomplete selection criterion to admit students only on the basis of achieved points in tests of knowledge.

We see practical benefits of this study in the knowledge of study preconditions and study motivation of students in teaching courses at our faculty. Familiarity with the target group, for which lessons are prepared, can help us set requirements and achievement of realistic expectations of study results in order to avoid under-estimation or over-estimation of students' performance. We hope that we have been able to remove the myths the decreasing level of study preconditions of this group of university students and to support pedagogical optimism of teachers.

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Inclusive Early Childhood Education, Play and Recreational Activities as Predictors of Social Adjustment of Children with Hearing Impairment in Oyo State, Nigeria

Francesca Uko

Abstract

This study investigated inclusive early childhood education, play and recreational activities as predictors of social adjustment of children with hearing impairment in Oyo State, Nigeria. A sample of two hundred and seventy (270) participants comprising of 150 teachers having children with hearing impairment in their classrooms and 120 parents of children with hearing impairment. A ten (30) item questionnaire with a 4-point rating scale and reliability coefficient of 0.71 to 0.77 was used to collect teachers' and parents' opinions on inclusive early childhood education, play and recreational activities as predictors of social adjustment of children with hearing impairment. The data collected were statistically analyzed using Pearson Product Moment Correlation and was used to determine the significant relationship in the stated research questions while Multiple Regression Analysis (MRA) was used to verify whether the independent variables predicted the dependent variable or not. The findings revealed that the independent variables (inclusive early childhood education, play and recreational activities) were associated and predicted social adjustment of children with hearing impairment

in Oyo State, Nigeria. The authors recommended among others that parents should enroll their children in an early childhood education program as part of the early intervention package for the child to help the child start making early interactions with other children in social contexts.

Key words: Inclusive, early childhood education, play, recreational activities, social adjustment.

Inkluzivní vzdělávání, hra a rekreační aktivity v raném dětství jako prediktory sociální přizpůsobení u dětí s poruchami sluchu ve státě Oyo v Nigérii

Abstrakt

Tato studie zkoumala inkluzivní vzdělávání hru a rekreační aktivity v raném dětství jako prediktory sociální přizpůsobení u dětí s poruchami sluchu ve státě Oyo v Nigérii. Vzorek dvou set sedmdesáti (270) účastníků sestával ze 150 učitelů pracujících ve své třídě s dětmi s poruchami sluchu 120 rodičů dětí s poruchami sluchu. Desetipoložkový (30) dotazník se čtyřbodovou hodnotící škálou a koeficientem spolehlivosti od 0,71 do 0,77 sloužil ke sběru informací o názorech učitelů a rodičů na inkluzivní vzdělávání, hru a rekreační aktivity v raném dětství jako prediktory sociálního přizpůsobení u dětí s poruchami sluchu. Získaná data byla statisticky analyzována za použití Pearsonova korelace součinu momentů a použita pro identifikaci významného vztahu ve stanovených výzkumných otázkách. Dale byla použita mnohonásobná regresní analýza (MRA) pro verifikaci otázky, zda nezávislé proměnné předpovídají závislou proměnnou, či nikoli. Zjištění ukázala, že nezávislé proměnné (inkluzivní vzdělávání, hra a rekreační aktivity v raném dětství) se pojí se sociálním přizpůsobením u dětí s poruchami sluchu ve státě Oyo v Nigérii a předvídají ho. Autoři mimo jiné doporučili, aby rodiče zapsali děti do vzdělávacího program v raném dětství jako součást balíčku rané intervence u dětí, a pomohli jim tak vytváření brzy interakce s jinými dětmi v sociálních kontextech.

Klíčová slova: inkluzivní, vzdělávání v raném dětství, rekreační aktivity, sociální přizpůsobení.

Introduction

The period of childhood is a critical period where all children undergo dramatic physical, mental, psycho-emotional, and social changes as this marks a crucial period of their development. In this period, children develop on many fronts, entering new endeavors and experiment with many things to get adjusted to the social environment. They begin to learn how to establish healthy relationships, find socially acceptable ways of engaging in social activities that interest them to be accepted by peers, and make their way through school. This is a hallmark of socialization and adjustment to life. However, a number of children experience more difficulties in engaging in these activities than their peers' due to differences in nature (Hall & Filar, 2017). One of the categories of children that may experience undue trials in their relationship and social adjustment are those with hearing loss. Hearing impairment has debilitating effects on a child's social competence due to imperfect or lack of linguistic competence. This disability may keep these children from engaging in social activities that promote their social integration into children fold due to inability to acquire the communication and social skills needed for this endeavor.

Due to this disabling condition, some children with hearing impairment are unable to find a solid emotional and social ground as they progress through their developmental stages. An inability to "fit it" or adjust to social norms can have behavioral manifestations that cause significant difficulty for the children themselves, school, family and the community at large. When a child's behavior violates or negates the acceptable social norms at home, at school, or in the community, negative repercussions such as social disintegration, punishment or suspension from school may follow which further result in more social maladjustment. Many children with hearing impairment encounter additional hurdles that complicate this difficult time of childhood. As these children are making transition to adolescence, when being like their peers becomes a priority, social, language and communication incompetencies set them apart in the ways they behave, learn, or interact with others, presenting additional challenges to positive social adjustment. The increased challenges of the disability and their implications result in these children facing a greater risk than their peers without disabilities for poor social adjustment. Hearing impairment has the tendency of making these children lag behind in pragmatic contexts due to language deficiencies (Carl, Camille, & Wagner, 2011). Children with hearing impairment who have trials adjusting socially at home, school and community are more likely to suffer from feelings of loneliness, anxiety, and depression which result in social maladjustment and disintegration. Thus, social adjustment is crucial for the development of children with hearing impairment as well as social, educational and economic integration into the larger context of the society.

Therefore, social adjustment is an effort made by a child with hearing impairment to cope with the standards, values, norms and needs of the society which promotes

acceptance as an integral member of the society. It is a psychological effort to get along with others at school, home and community, overcoming the debilitating effects of hearing loss. Also, as defined by Gerdes and Mallinckrodt (2014), social adjustment is the process by which children with hearing impairment become integrated into the community, build support networks, and negotiate the new freedoms afforded by social life. These children's adjustment is a combination of students' social, personal, emotional, and academic adjustment along with their reported feelings of learning enthusiasm. The efforts by which these children overcome the effects of hearing loss is through a gradual process of intrapersonal discipline and emotional responsibility developed through interaction with others which result in socially acceptable behavior and relationships with other children. Thus, according to Yemi and Kainde (2016), to promote social adjustment of children with hearing impairment to the disability as well as to the social standards of the society, socialization with peers through a range of inclusive social opportunities are critically vital to the process of social adjustment. Amongst the range of inclusive socialization avenues that may promote social adjustment of children with hearing impairment are inclusive early childhood education, inclusive play and recreational or leisure activities. Through these avenues, these children may learn to get along with others, come out of their silent world, and embrace joy and happiness of being around other children, being loved and valued by others. These inclusive social platforms are initiated to help develop the social skills of these children so as to enable them to accept themselves, their condition and others in the society thereby developing important understanding of the difference existing between them and other children without disability in his/her fold.

Docafer (2017) stated that today an ever-increasing number of infants and young children with and without disabilities play, develop, and learn together in a variety of places—homes, early childhood programs, neighborhoods, and other community-based settings. The notion that young children with disabilities and their families are full members of the community reflects societal values about promoting opportunities for development, social responsibility, and a sense of belonging for every child. It also reflects a reaction against previous educational practices of separating and isolating children with disabilities. Inclusive early childhood education is a crucial opportunity accorded to children with hearing impairment to learn, play and integrate with other children as means of acquiring the norm and social standards of the society. Tokpe and Chalu (2012) asserted that early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with and without disabilities and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their full potential. The defining features of inclusion that can be used

to identify high quality early childhood programs and services are access, participation, and support. Inclusive early childhood education is designed as a measure of starting integration of children with hearing impairment into the social, economic, educational and political mainstream of the society which in turn promotes social adjustment of the child (Aidina & Haji, 2013). The mandate of inclusive early childhood education is based on the biblical principle of "training a child how he should go and when he is old he would not depart from it. The behavior of these children at school is a crucial element in their overall social adjustment. Not only is school the context in which these children spend most of their day, it also is where they engage in the important social activities to gain academic knowledge; learning and practicing more generalized skills, such as problem solving, being on time, and following directions; and developing formative relationships with peers and adults. Furthermore, the consequences of their behavior at school can be powerful. Students' inappropriate behavior at school can distract both the students themselves and those around them from their learning tasks.

Other avenues through which social adjustment of children with hearing impairment could be enhanced are through inclusive play and recreational activities. Inclusive play stresses the importance of including all children, with or without disabilities by fostering an environment where diversity is respected, valued and celebrated as a crucial endowment in nature. Children naturally enjoy the benefits of playing together with others in the outdoor environment. Inclusive play enables the interaction of all children with or without hearing impairment in social contexts to promote a feeling of happiness, acceptance, value which help these children to learn vital skills necessary for social adjustment. Inclusive play and recreational activities can bring children of all ethnic groups, races, abilities, colours, languages and cultural creed together, expand and strengthen social ties and networks, link children to resources and provide them with a sense of belonging (Campbell & Jag, 2012). Children benefit from being outside, interacting with their environment, learning from nature and developing through play. Creating places that are truly inclusive is also important for the understanding of diversity. By ensuring that children, young people and adults can all socialize, play and be part of a community enables them a greater awareness and understanding of the needs of different people. These activities are also the elements that build and promote the worth, sense of belonging and promote social adjustment (Ertmold & Hassen, 2015). They have also been recognized as tools for promoting acceptance and social adjustment to disability. Therefore, inclusive early childhood education, play and recreational activities are strategies that help these children respond to acceptable social demands to overcome the effects of the hearing loss. It is against this background that this study is keen to investigate inclusive early childhood education, play and recreational activities as predictors of social adjustment of children with hearing impairment.

Statement of the Problem

Social adjustment is a crucial facility that promotes acceptance, coexistence, and compliance to norms, values and standards of the society. Social adjustment of children with hearing impairment is crucially essential for developing acceptable behaviors and relationships with self and other people around. Research and experience have shown that most children with hearing impairment in Oyo State, Nigeria have deficiency in this facility needed to get along well with others, accepting their differences and socializing in a manner that is typical of well-adjusted children. Research has also demonstrated that these children because of their disability are often kept from other children right from cradle. This isolation results in difficult social adjustment to the social standards of the society. These children manifest behaviors such as isolation, depression, aggression and other socially inappropriate behaviors that show lack of self-acceptance.

It is in response to these inadequacies that the researcher conceived to investigate whether inclusive social activities such as inclusive early childhood education, play and recreational activities foster social adjustment of children with hearing impairment. The problem of this study is to what extent do inclusive early childhood education, play and recreational activities predict social adjustment of children with hearing impairment in Oyo State, Nigeria.

Purpose of the Study

The purpose of this study was to investigate inclusive early childhood education, play and recreational activities as predictors of social adjustment of children with hearing impairment in Oyo State, Nigeria. Specifically, the study aimed:

- i. To find out the relationship between the independent variables (inclusive early childhood education, play and recreational activities) and the dependent variable (social adjustment of children with hearing impairment).
- ii. To determine the composite contribution of the independent variables (inclusive early childhood education, play and recreational activities) to the dependent variable (social adjustment of children with hearing impairment).
- iii. To examine the relative contribution of the independent variables to the dependent variable

Research Question

The following research questions were answered in the study:

1. What is the relationship between the independent variables (inclusive early childhood education, play and recreational activities) and the dependent variable (social adjustment of children with hearing impairment)?
2. What is the composite contribution of the independent variables (inclusive early childhood education, play and recreational activities) to the dependent variable (social adjustment of children with hearing impairment)?
3. What is the relative contribution of the independent variables (inclusive early childhood education, play and recreational activities) to the dependent variable (social adjustment of children with hearing impairment)?

Methodology

The research adopted a correlational survey design and multistage sampling technique was used to sample 270 (two hundred and seventy) participants comprising of 150 teachers having children with hearing impairment in their classrooms and 120 parents of children with hearing impairment. The instrument for data collection was a questionnaire of ten (30) items with a 4-point rating scale. It was used to survey the opinions of teachers and parents on the perceived extent to which inclusive early childhood education, play and recreational activities predict social adjustment of children with hearing impairment. The instrument was validated by three experts and has reliability coefficient 0.71 to 0.77 obtained through the Cronbach Alpha method of determining reliability. Pearson Product Moment Correlation was used to determine the significant relationship in the stated research questions while Multiple Regression Analysis (MRA) was used to verify whether the independent variables predicted the dependent variable or not.

Presentation of Results

Research Question 1: What is the relationship between the independent variables (inclusive early childhood education, play and recreational activities) and the dependent variable (social adjustment of children with hearing impairment)?

Table 1

Correlation between the independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment

Variables	Mean	Std. Deviation	N	Df	R	P	Remark
Social adjustment of children with hearing impairment	7.56	2.23	270	3	—	—	—
Inclusive early childhood education	7.50	2.19			.699*	.000	Sig.
Inclusive play	7.81	2.74			.779*	.000	Sig.
Inclusive recreational activities	6.99	2.01			.367*	.000	Sig.

* Correlation Significant at 0.05 level

Table 1 above revealed that there was a significant relationship between the independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment. It revealed that social adjustment of children with hearing impairment has a significant correlation with inclusive early childhood education ($r = 0.699$, $P < 0.05$), inclusive play ($r = 0.779$, $P < 0.05$) and inclusive recreational activities ($r = 0.367$, $P < 0.05$), since P-value (.000) was below 0.05 level of significance, therefore, there was a significant relationship between the independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment in Oyo State, Nigeria. This indicates that children exposed to inclusive early childhood education, play and recreational activities have a higher chance of being socially adjusted to their environment than those who are not. The extent of this exposure determined the level of their social adjustment and competency respectively.

Research Question 2: What is the composite contribution of the independent variables (inclusive early childhood education, play and recreational activities) to the dependent variable (social adjustment of children with hearing impairment)?

Table 2

Summary of Regression Analysis of the combined prediction of the independent variables and the dependent variable

R		R Square		Adjusted R Square		Std. Error of the Estimate
0.800		0.633		0.601		1.211
SUMMARY REGRESSION ANOVA						
	Sum of Square	Df	Mean Square	F	P	Remark
Regression	723.011	3	878.936	12.412	.000	Sig.
Residual	221.122	266	7.922			
Total	944.133	269				

Table 2 above showed that there was a significant composite contribution of the independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment. The Table also shows a coefficient of multiple correlation [®] of 0.800 and a multiple R Square of 0.633. This means that 60.1 % (Adj. $R^2 = 0.601$) of the variance in social adjustment of children with hearing impairment is accounted by the independent variables compositely. The significance of the composite contribution was tested at $p < 0.05$ using the F-ratio at the degree of freedom (df = 3/269). The table also shows that the analysis of variance for the regression yielded a F-ratio of 12.412 (sig. at 0.05 level).

Research Question 3: What is the relative contribution of the independent variables (inclusive early childhood education, play and recreational activities) and the dependent variable (social adjustment of children with hearing impairment)?

Table 3

Relative contribution of the independent variables to the dependent variable (Test of Significance of the regression Coefficients)

Variable	Unstandardized Coefficients		Standardized Coefficients		
Model	(B)	Std. Error	Beta	T	Sig.
Constant	4.191	.346	–	21.577	.000
Inclusive early childhood education	.571	.022	.711	17.654	.000
Inclusive play	.499	.019	.524	10.360	.000
Inclusive recreational activities	.252	.013	.316	6.980	.000

Table 3 above reveals that there is a significant contribution of the independent variables (inclusive early childhood education, play and recreational activities) to the dependent variable (social adjustment of children with hearing impairment), expressed as beta weights. There is a correlation coefficient of inclusive early childhood education, play and recreational activities on social adjustment of children with hearing impairment in Oyo State, Nigeria. That is, social adjustment of children with hearing impairment in Oyo State, Nigeria has a relative contribution on inclusive early childhood education, play and recreational activities. Using the standardized regression coefficient to determine the relative contribution of the independent variables, inclusive early childhood education ($\beta = 0.711$, $t = 17.654$, $p < 0.05$) indicates the highest contributor to the prediction, while the second one in that order is inclusive play ($\beta = 0.524$, $t = 10.360$, $p < 0.05$), and the last one is inclusive recreational activities ($\beta = 0.316$, $t = 6.980$, $p < 0.05$) contributing to social adjustment of children with hearing impairment in Oyo State, Nigeria. It implies that there is a significant relative contribution of the independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment in Oyo State, Nigeria.

Discussion

The research question of this study investigated what relationship exists between independent variables (inclusive early childhood education, play and recreational activities) and social adjustment of children with hearing impairment in Oyo State, Nigeria. The findings of the study revealed that inclusive early childhood education, play and recreational activities are good predictors of social adjustment of children with hearing impairment. The findings of this study agree with the work of Budeua and Haji (2013) which affirmed that when children with hearing impairment were given access to learning together with other children without disabilities, social competence, acceptance of self and others is drilled and crested in the minds of children at the early stage. It forms indelible marks and gives them a belief system that promotes togetherness and social adjustment. Inclusive early childhood education has gotten consensus around three general areas that transcend the developmental domains in which young children with hearing impairment should demonstrate progress toward becoming more meaningfully engaged in their day-to-day life alongside other children. According to Kiy and Fhodu (2015), to develop socially and successfully integrated into the school and community, children with hearing loss need opportunities to do the following:

- Develop positive social-emotional skills (including social relationships with peers at the early age as part of early intervention programmes)
- Acquire and use knowledge and skills (including early language/communication and early literacy skills)
- Use appropriate behaviors to meet their own needs

The rationale for these functional outcome areas is that children should be acquiring the rudimentary knowledge, skills, and behaviors needed to socially adjust, think critically, and solve problems in social contexts, as well as getting along with others. Research has shown that children with hearing impairment who have multiple interactions with peers and adults throughout early childhood education show a marked improvement across multiple areas of development, particularly in social development (Buysse, Goldman, & Skinner, 2013). It is vitally important for children to be placed in inclusive early childhood education in which they can interact with peers and adults alike. Buysse, Goldman, and Skinner reported that these children who were included in high-quality inclusive early childhood education classrooms with their typically developing peers stood to reap positive gains across social domains and likely in the functional outcome areas such as social integration.

Similarly, inclusive play itself brings crucial and wide-ranging benefits to children and the people around them. This agrees with the findings of Awhol and Veshim (2017) which supported those children who were exposed to good quality inclusive play experience, interesting and stimulating environments throughout their childhood and would gain many benefits to their well-being, happiness and social development. They noted that through experience of inclusive play in which they felt included and supported, children gained many benefits including:

- a truer understanding of the world: that there are similarities and differences between people;
- the development of attitudes such as tolerance, appreciation of difference, acceptance of perspectives and perceptions other than their own;
- a richer play environment which includes different language and methods of communication, a wider range and use of play materials;
- a positive sense of self, self-esteem and positive reinforcement of their sense of identity;
- experiences linked to curricular goals, in the realms of social and emotional development, language development, knowledge and understanding of the world and citizenship;
- The ability to exercise their rights under the UN Convention on the Rights of the Child.
- Children's relationships and friendships continue outside the setting.
- Connections between children at play, foster connections between parents and families through play at each other's homes and encounters in community play spaces.
- Opportunities arise for communication, building relationships and gaining a greater sense of connectedness and understanding.
- Greater openness to and appreciation of diversity emerges. Encounters between people of different backgrounds and circumstances or needs are based on familiarity.

The findings of this study are also in line with Fiona, Elliott and Day (2014) who supported that many opportunities for children with hearing impairment were severely restricted. Community-based facilities, such as sporting activities, play schemes, and organized clubs and groups frequently exclude these children. In addition, these children often attend specialist schools or nurseries away from where they live, reducing their opportunities to make friends in their own communities. Reduced opportunities for inclusive play and leisure also affect these children's families. Most parents can take a break from parenting responsibilities while their children are playing with friends or involved in leisure activities. Parents of these children often do not experience these breaks; so also, brothers and sisters may be required to play with their hearing-impaired sibling rather than pursuing their own friendships and interests. This limits their opportunity of interacting with other children, discovering differences and accepting all as a rich source of humanity.

The message from inclusive play is that it makes it better for everyone. Play is crucial to children's experience of a setting. Whether the staff are pleasant, the buildings adequate, the program varies, if the time spent at play with peers is unsatisfactory then that sets the tone for their whole view of the setting. Whether play is the primary objective of the setting or a way of working, access to play is crucial from the child's point of view. The work of play specialists illustrates this well in that good home care is not enough for children with hearing impairment to feel positive about their disability and that child's opportunities for play aid his/her adjustment and coping. In the same vein, Sobel, Katie and Kientz (2015) supported that children with hearing impairment benefited from inclusive play because they were not being implicitly told they were different, wrong, abnormal, or that they did not deserve to have the same experiences as other children. Inclusive play environments support all children to develop important social and positive outcomes ripple through the community of the setting, helping families of children to build inclusive relationships as well. For young children, play is a meaningful, active, pleasurable, and intrinsically motivated experience and medium for learning. Inclusive play provides significant learning opportunities that are in line with the goals of inclusion. Through inclusive play, young children with hearing impairment naturally learn how to use language, communicate, cooperate, make and maintain friendships, control impulses, take different perspectives, and develop other social and emotional skills. Thus, having opportunities for children to play and learn through play is fundamental for social adjustment.

Similarly, the findings of this research corroborate with the findings of Justin, (2011) which supported that involvement of meaningful recreational activities was essential for every child's physical, psychological, and emotional well-being. The primary goal of using an inclusive approach is to have all children without disabilities recreate and interact with the hearing impaired in their choice of recreational activities. The rationale behind inclusive recreational activities is to bring all children together to interact with

the environment both in its natural way and its developed state to help children with hearing impairment adjust socially while acquiring the needed social skills to function in society. Across country, as the momentum to create learning in school communities is growing, increasing numbers of states, communities, and organizations are using an inclusive approach to recreation and leisure in many, diverse ways— providing adaptations, accommodations, and supports so that every pupil can participate and benefit from a typical recreational experience in the school community to foster national unity and social development of persons with hearing impairment (Hugh, 2015).

In recent years, there has been a growing awareness of the social benefits for hearing-impaired children who indulge in participation in community recreational activities. People with hearing impairment, their families and care givers are also seeking these benefits and are increasingly seeking access to their recreational activities providers, with varying degrees of success (Wedra, 2014). In Nigeria, recreational sport is a fundamental part of adjustment to disabilities for children with hearing impairment. It enables school children with hearing impairment to develop social skills, form friendships, develop physical skills and learn about and become confident in their environment. However, for many deaf and hard of hearing students, opportunities are severely restricted to inclusive recreational activities which bring about the wildest excitement and psychological upturn in students. Community-based facilities, such as recreational activities, play schemes, and organized clubs and groups frequently exclude hearing impaired children. In addition, many hearing impaired children often attend special schools or nurseries away from where they live, reducing their opportunities to make friends in their own communities through inclusive recreational activities (Catedral & Wayne, 2017). Ural and Denka (2010) noted that while the benefits of an integrated, inclusive approach to recreational activities in schools for individual hearing impaired and the general school communities were becoming better understood, historically, such opportunities had been very limited. Younger people with hearing impairment have often been excluded from community recreation or participated in “special” or “segregated” programs, often with few activity options. This lack of involvement has often led to social isolation, physical inactivity, and depression for both seniors and younger people with hearing impairment.

Conclusion

Inclusive early childhood education, play and recreational activities are potent strategies through which the school and the community can explore to facilitate the social adjustment of children with hearing impairment as part of the early intervention program for these children. Providing children with a wealth of contact with other children facilitates their understanding of diversity and acceptance of this diversity as a rich

of source of humanity. This in no little measure promotes their social adjustment by developing social skills.

Recommendations

Based on the findings of this study, the researcher recommended that:

- i. Parents should enrol their children in early childhood education programmes as part of the early intervention package for the child so as help the child start make early interactions with other children in social contexts
- ii. Schools having children with hearing impairment should constantly design inclusive play programmes to help strengthen social interaction between children with hearing impairment and those without disabilities.
- iii. The school, community and family should work collaboratively and at frequent intervals to take these children for inclusive recreational activities where they interact together with both man-made and natural beauty of the environment. This increases their social contact, strengthens friendships and helps them develop positive perception of self, peers and the environment in which they live.

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Factors associated with negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria

Francesca Uko

Abstract

This study investigated factors associated with negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. A sample of seventy-five (75) teachers of children with hearing impairment was selected through the purposive sampling technique. A thirty (30) item questionnaire with a five-point rating scale and reliability coefficient of 0.78 to 0.82 was used to collate teachers' opinions of factors associated with negative attitudes towards inclusive education of children with hearing impairment. The data collected were statistically analyzed using Pearson Product Moment Correlation which was also used to determine significant relationships in the stated research questions while Multiple Regression Analysis (MRA) was used to verify whether the independent variables predicted the dependent variable or not. The findings revealed that teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss were associated and predicted negative attitudes of teachers towards inclusive education of children with hearing impairment. The authors recommended among others, that teachers' ongoing development programs in form of conferences, workshops and specialized training should be organized for teachers by the Government to provide them with the right pedagogical knowledge, practical skills and attitudes needed to foster inclusive education of children with hearing impairment.

Key words: negative attitudes, teachers, inclusive education.

Faktory spojené s negativními postoji učitelů k inkluzivnímu vzdělávání dětí s poruchami sluchu v Uyo v Nigérii

Abstrakt

Tato studie zkoumala faktory spojené s negativními postoji učitel k inkluzivnímu vzdělávání dětí s poruchami sluchu v Uyo v Nigérii. Vzorek sedmdesáti pěti (75) učitelů dětí s poruchami sluchu byl vybrán pomocí techniky záměrného výběru. Třicetipoložkový (30) dotazník s pětibodovou hodnotící škálou a koeficientem spolehlivosti mezi 0,78 a 0,82 sloužil k porovnání názorů učitelů na faktory spojené s negativními postoji k inkluzivnímu vzdělávání dětí s poruchami sluchu. Získaná data byla statisticky analyzována za použití Pearsonova korelace součinu momentů, pomocí které byl také určen významný vztah ve stanovených výzkumných otázkách. Dále byla použita mnohonásobná regresní analýza (MRA) pro verifikaci otázky, zda nezávislé proměnné předpovídají závislou proměnnou, či nikoli. Zjištění ukázala, že nízká kompetentnost učitelů, nedostatek motivací pro učitele a závažnost ztráty sluchu u dítěte se pojí s negativními postoji učitelů k inkluzivnímu vzdělávání dětí s poruchami sluchu a předvídají ho. Autoři mimo jiné doporučili, aby vláda organizovala program dalšího rozvoje učitelů, a poskytla jim tak správné pedagogické vědomosti, praktické dovednosti a postoje potřebné pro podporu inkluzivního vzdělávání dětí s poruchami sluchu.

Klíčová slova: negativní postoje, učitelé, inkluzivní vzdělávání.

Introduction

Education of learners with special needs at regular schools has its origin in international documents, which support inclusion of all learners in general education classroom. Such documents include: 1948–United Nations Human Rights to Education, 1989 – United Nations Convention on the Rights of the Child, 1993 – United Nations Standard Rules on Equalization of Opportunities for Persons with Disabilities UNESCO, 2006 and the Salamanca Statement 1994. Inclusion is a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility

of the regular system to educate all children (UNESCO, 1994; UNESCO, 2003). Similarly, Obani (2014) sees inclusion as a higher level of integration which requires that schools prepare, plan for, and adapt their systems and practices to meet the learning needs of every school child (with or without disabilities) in the same neighbourhood schools.

The Salamanca Statement is a commitment to integrate children with hearing impairment into the educational and social mainstream. Inclusive education is a process of strengthening the capacity of the educational system to reach out to all learners, and could thus be understood as a leeway strategy to achieve access and quality education for these children (Kinar, 2011). It is a common knowledge that placing children with hearing impairment in segregated schools result in their segregation from those without disabilities, consequently isolating them from day-to-day experiences with other children, while integrating them into regular schools will help them to achieve their maximum potentials in a more favorable educational and social environment. Inclusive education is a universal mandate to promote unity in diversity and acceptance. The philosophy of inclusive education is that all learners with or without disabilities receive educational provision in the same learning environment. The purpose of inclusive education is to promote scholarship, friendship, understanding of diversities, acceptance of differences and respect for human dignity.

Nigeria as a signatory nation to these international treaties became encouraged to setup educational mechanism to achieve inclusive education. This is evident in the Government's recognition of inclusive education as an effective means of combating discrimination and promoting inclusive society. The National Policy on Education 2008 states categorically that persons with special needs shall be provided with inclusive education services (as far as possible) at schools which normal children attend, in age appropriate general education classes directly supervised by general teachers (Federal Republic of Nigeria, 2008). Florien (2012) stated that the Nigerian government has responded positively in line with global trend by ensuring that all children with disabilities, including those with hearing impairment, access neighborhood schools as they would without disability. As inclusion has seemingly become the preferred placement model for children with special needs in Nigeria, teachers' attitudes toward children with hearing impairment have become an important variable in creating a successful learning experience. Research in special needs education and inclusion has the assumptions that teachers' attitudes may act to facilitate or inhibit the efforts toward the implementation and practice of inclusive education for children with hearing impairment as well as the learning experience of these children in inclusive classrooms. During the past two decades, the inclusion movements have made a significant progress in supporting the rights of children to have their special educational needs identified and met through education legislation and the right of individuals with disabilities to equal opportunities, minimizing unjustified discrimination, and developing support facilities and services for individuals with special needs (Disability Rights Task Force Final Report, 2004).

Despite the apparent benefits of inclusion, and regardless of the schools' commitment to ensuring all learners participate and progress in the same curriculum and in the same classroom, achieving potentials at individual pace and learning styles, attitudes of teachers have proven to be the key determinant of sustainable inclusive education influenced by a variety of factors. Research has suggested that teachers' attitudes might be influenced by numerous factors which are in many ways interrelated. Several inclusion studies have been concerned with determining teachers' attitudes towards different categories of children with hearing impairment and their perceived suitability for inclusion. These factors could be termed 'child-related' variables or grouped under the heading 'teacher-related' variables or finally could be termed 'educational/environment related' variables (Jenkins, 2010; and Adeyemi, 2011).

Inclusive education studies (such as Adeyemi, 2011, Fullan, 2013, and Lampe, 2017) as well as a recent study by Uko (2017) in Nigeria have revealed that even teachers initially held supportive views about inclusive education of children with hearing impairment but in the process of its implementation and practice in the classroom they developed negative attitudes towards it. Such negative attitudes may have been emanated and largely influenced by factors such as insufficient knowledge on inclusive education of a child with hearing impairment, severity of the hearing impairment and lack motivation or incentives by the government on the extra responsibilities of teachers. Many teachers complain about a lack of specialist training or orientation on the learning needs of these children and how to circumvent their learning challenges. This makes teachers become limited in their knowledge and professional response to the learning needs of these children. Fullan (2013) argued that teachers are more supportive of learners with mild hearing loss than those with severe or profound hearing loss noting that it requires less efforts and commitment to accommodate these in instructional delivery than those with profound hearing loss. On the other hand, government has stated laudable goals and objectives of inclusive education without commitment to achieving such objectives. Teachers are not given incentives on their extra work to ensure these children benefit as much as others in class. Thus, discouragement and negative attitudes have set in on the part of the teachers.

In the light of the above, Muir (2011) and Lampe (2017) explained that one of the most significant constraints to successful inclusion of children with hearing impairment is negative attitudes of teachers towards these children. Classes are now becoming more diverse with respect to students' abilities requiring improved classroom management skills, knowledge and competence in providing need-based education to these learners as well as motivation of teachers on the part of the government for their increased responsibilities. These increased classroom responsibilities incite negative attitudes in teachers which ultimately hamper successful learning experience by children with special needs. It is reported that regular classroom teachers do not hold supportive attitudes towards educational inclusion and this has a significant impact on inclusion

of these learners in the regular school system. A research by Lampe (2017) also notes that certain factors are associated with negative attitudes of regular education teachers towards children with hearing impairment. One of such factors is the knowledge and competency level of regular education teachers in providing quality service delivery in compliance to the best global practices in special needs education. Another striking factor is the severity of the hearing loss. The attitudes of teachers change with a varying degree of severity of the disability. Many teachers prefer mild or moderate hearing loss to others in reflection of their socio-cultural and educational backgrounds. Additionally, a lack of incentives for teachers of children with special needs has proven to incite negative attitudes towards children with special needs in the classroom. Teachers with good motivation to teaching these children tend to be committed to their work and are more concerned about the educational and social progress of the child.

It is against this background that the researchers need to investigate factors associated with negative attitudes of teachers toward children with special needs in Uyo, Nigeria. Thus, under this investigation, the researcher is keen on finding out how teachers' incompetence, a lack of incentives for teachers as well as severity of hearing loss relate to negative attitudes of teachers towards inclusive education of children with hearing impairment.

Statement of the Problem

The global trend in the provision of educational services to individuals with disabilities today is inclusion. Inclusive education has been recognised globally as the most effective means of providing education for children with special needs including those with hearing impairment. However, studies have shown that one of the factors influencing the effective implementation of inclusion is teachers' attitudes. Research and experience have demonstrated that this universal right has incited negative attitudes among teachers towards children with hearing impairment. Teachers who play a central role in the implementation of inclusive education of children with hearing impairment manifest negative attitudes due to certain factors.

Research and experience have demonstrated that many teachers have insufficient knowledge of classroom pedagogical practices required for inclusion of these children. This inadequacy results in negative attitudes towards these children which hampers successful learning experience. Similarly, experience has revealed that the severity of the hearing loss influences the attitudes of teachers towards the child and the motivation teachers receive from the Government for their increased responsibility in the class impact their attitudes towards these children. Inclusion of children with hearing impairment may not be successful if negative attitudes of teachers are not removed at an early stage. Such attitudes may negatively affect their readiness to

accommodate these children in their classrooms. To achieve this universal mandate and ensure these children are educated in the spirit of inclusive education, there is an urgent need to identify those factors that incite negative attitudes towards inclusive education of children with hearing impairment among teachers so that realistic measures can be taken to forestall the current ordeal in education of these learners so as to attain global sustainable inclusive education in 2030. It is against this background that this research is keen on investigating what factors incite negative attitudes of teachers towards inclusive education of children with hearing impairment. The problem of this study therefore is, what is the composite and relative contribution of teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss to negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria.

Purpose of the Study

The purpose of this study was to investigate factors associated with negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. Specifically, the study aimed:

- i. To find out the relationship between the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment).
- ii. To determine the composite contribution of the independent variable to the independent variables.
- iii. To examine the relative contribution of the independent variable to the dependent variables.

Research Question

The following research questions were answered in the study:

1. What is the relationship between the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment)?
2. What is the composite contribution of the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) to the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment)?

3. What is the relative contribution of the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) to the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment)?

Methodology

The research adopted a correlational survey design and purposive sampling technique was used to sample 75 (seventy-five) teachers having children with hearing impairment in their classrooms. The instrument for data collection was a questionnaire of ten (30) items with a 5-point rating scale. It was used to survey teachers' opinions on factors associated with their negative attitudes towards inclusive education of children with hearing impairment. The instrument was validated by three experts and has reliability coefficient 0.78 to 0.82 obtained through Cronbach Alpha method of determining reliability. Pearson Product Moment Correlation was used to determine the significant relationship in the stated research questions while Multiple Regression Analysis (MRA) was used to verify whether the independent variables predicted the dependent variable or not.

Presentation of Results

Research Question 1: What is the relationship between the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria?

Table 1

Correlation between the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria

Variables	Mean	Std. Deviation	N	Df	R	P	Remark
Negative attitudes towards Inclusive Education	5.94	2.505	75	3	—	—	—
Teachers' poor competency	5.98	2.62			.685*	.000	Sig.
Lack of teachers' incentives	6.99	2.911			.812*	.000	Sig.
Severity of hearing loss	5.30	2.19			.255*	.000	Sig.

* Correlation Significant at 0.05 level

Table 1 above revealed that there was significant relationship between the independent variables (teachers’ poor competency, lack of teachers’ incentives and severity of the child’s hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment. That is negative attitudes of teachers towards inclusive education of children with hearing impairment has correlation with teachers’ poor competency ($r = 0.685$, $P < 0.05$), lack of teachers’ incentives ($r = 0.812$, $P < 0.05$) and severity of hearing loss ($r = 0.255$, $P < 0.05$), since P was lesser than 0.05 level of significance, therefore, there was a significant relationship between the independent variables (teachers’ poor competency, lack of teachers’ incentives and severity of the child’s hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria.

Research Question 2: What is the composite contribution of the independent variables (teachers’ poor competency, lack of teachers’ incentives and severity of the child’s hearing loss) to the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment)?

Table 2
Summary of Regression Analysis of the combined prediction of the independent variables and the dependent variable

R		R Square		Adjusted R Square		Std. Error of the Estimate
0.859		0.738		0.737		1.386
SUMMARY REGRESSION ANOVA						
	Sum of Square	Df	Mean Square	F	P	Remark
Regression	336.809	3	78.801	9.486	.000	Sig.
Residual	201.023	71	1.312			
Total	537.832	74				

Table 2 above showed that there was a significant composite contribution of the independent variables (teachers’ poor competency, lack of teachers’ incentives and severity of the child’s hearing loss) and negative attitudes of teachers to inclusive education of children with hearing impairment in Uyo, Nigeria. The table also shows a coefficient of multiple correlation (R) of 0.859 and a multiple R Square of 0.738. This means that 73.7 % ($\text{Adj. } R^2 = 0.737$) of the variance in teachers’ negative attitudes towards inclusive education of children with hearing impairment is accounted by the independent variables, when taken together. The significance of the composite contribution was tested at $p < 0.05$ using the F -ratio at the degree of freedom ($df = 3/74$). The Table also shows that the analysis of variance for the regression yielded a F -ratio of 9.486 (sig. at 0.05 level).

Research Question 3: What is the relative contribution of the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and the dependent variable (negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria)?

Table 3

Relative contribution of the independent variables to the dependent variable (Test of Significance of the regression Coefficients)

Variable	Unstandardized Coefficients		Standardized Coefficients		
Model	(B)	Std. Error	Beta	T	Sig.
Constant	7.461	.346	—	21.577	.000
Teachers' poor competency	.113	.018	.266	12.419	.000
Lack of teachers' incentives	.709	.023	.871	30.838	.000
Severity of the hearing loss	.452	.036	.143	6.149	.000

Table 3 above reveals that there is a significant contribution of the independent variables to the dependent variable, expressed as beta weights. There is correlation coefficient, teachers' poor competency, lack of teachers' incentives, and severity of the hearing loss on negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. That is, teachers' negative attitudes towards inclusive education of children with hearing impairment in Uyo, Nigeria has relative contribution on teachers' poor competency, lack of teachers' incentives, and severity of the hearing loss. Using the standardized regression coefficient to determine the relative contribution of the independent variables, lack of teachers' incentives ($\beta = 0.871$, $t = 30.838$, $p < 0.05$) indicates most potent contributor to the prediction, followed by teachers' poor competency ($\beta = 0.266$, $t = 12.419$, $p < 0.05$) and severity of the hearing loss ($\beta = 0.143$, $t = 6.149$, $p < 0.05$) has a contribution to negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. It implies that there is a significant relative contribution of the independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria.

Discussion

The research question of this study investigated what relationship existed between independent variables (teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss) and negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. The findings in this study indicated that teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss correlated with negative attitudes of teachers towards inclusive education of children with hearing impairment in the regular classroom. The implication of this is that teachers' poor competency, lack of teachers' incentives and severity of the child's hearing loss contribute greatly to negative attitudes of teachers towards inclusive education of children with hearing impairment in Uyo, Nigeria. The challenge of achieving full educational and social integration of children with hearing impairment within the educational setting could be easily achieved if the teachers possessed better knowledge about hearing impairment, and competencies to handle the children in the classroom. Such knowledge and understanding would enable them to develop positive attitude towards these children which in turn leads to acquiring or developing better competencies to handle the children. General education teachers usually have very little knowledge about learning difficulties of these children. This supports the findings by Kaidhi and Deli (2017) which affirmed that common reasons for teachers' negative attitudes were that teacher training programs devoted little or no class hours to understanding the challenges learners with hearing impairment faced and how to help them learn. Second, general education teachers typically do not undertake any further studies that focus on effective ways to teach learners with hearing impairment and possibly on sign language. Last, educational authorities do not provide ongoing in-service training for teachers about teaching learners who are deaf and hard of hearing. Due to the increasing number of children with hearing impairment at schools—mostly primary schools, it seems necessary for primary school teachers to be increasingly familiar with the learning difficulty to be able to identify these kinds of students in their classes and provide child-centered teaching strategies to help the progress in the general curriculum at par with others (Komidy & Fhildar, 2015).

The findings of this study are also in agreement with Adoryre (2013) which supported that class teachers had responsibility for providing an environment incorporating techniques and strategies recommended for the teaching of pupils with hearing impairment, choosing appropriate learning objectives which challenged and supported them, managing, accessing strategies and various teaching styles to support the unique learning profile of each child, working with parents to keep them informed of the strategies and approaches being used and finally, liaising with colleagues. Teachers who have the knowledge and practical skills required to accommodate these children in the classroom tend to develop positive attitudes towards their inclusion in

the regular education classroom. Recognizing the students with hearing impairment and employing educational methods for teaching this group of students give teachers satisfaction which promotes positive attitudes towards these children daily both in the classroom and outside the classroom. Negative attitudes are developed when teachers do not meet the educational goals of these children due to teacher-based factor such as knowledge on pedagogical principles for teaching children with hearing impairment.

The knowledge of regular classroom teachers on hearing impairment and the pedagogical expertise required are considered a central point in developing positive attitudes to include these students in regular schools. Several studies reported that regular classroom teachers did not possess the wherewithal to teach children with hearing impairment and thus, hold negative attitudes towards educational inclusion as coping and defense mechanism (Minkeet, 2016; Reite, 2017). Florien (2012) supported that many general classroom teachers in Nigeria resisted children with special needs in their classes due to insufficient knowledge on instructional accommodation, believing that inclusion interfered with the quality and effective education of other students without disabilities.

Similarly, these findings support Sideri and Vachou (2016) who reported that regular education teachers held many restrictive as well as conflicting beliefs towards disability and educational inclusion. These teachers reported that although educational inclusion was necessary as a means of improving the way ordinary school functioned and reducing the marginalization and stigmatization of students with hearing impairment, special segregated education was more important as a means of providing a secure and protective shelter to these students and as a way of covering many ordinary education's deficiencies. Teachers' insufficient knowledge on the disabilities, teachers' inability to conduct assessment-teaching process, teachers' inability to collaborate with stakeholders and teachers' inability to build self-esteem of these children result in developing negative attitudes towards this category of learners. In the same vein Tuloi (2015) reported that teachers' competence on the therapeutic pedagogy of children with hearing impairment is not sufficient. Thus, they resist including them in their classes to shy away from their responsibility. Further findings revealed that teachers do not have sufficient knowledge on the causes, nature, clusters of characteristics, psychological and learning/instructional needs of children with hearing impairment consequently denying these learners the right to quality education. In consonance with these findings, Munto (2012) stated that a high percentage of the influx of UBE teachers into Nigerian classrooms had no knowledge of disabilities and how this disability manifested itself in and out of classroom environments.

Also, the nature and severity of the hearing loss influence the attitudes of teachers. Smith (2014) affirmed that children with less severe hearing loss who also were less demanding in terms of teachers' input, were generally viewed more positively as candidates for inclusion than children with severe hearing loss. The findings of this study

also supported Avramidis, Bayliss, and Burden (2016) who maintained that the nature and severity of a student's hearing loss was related to teachers' willingness to include the students in general education classrooms. One major factor that influences teachers' attitudes toward inclusion is severity of the students' hearing loss and the amount of the teacher's responsibility needed to facilitate inclusion. Teachers also tend to believe that students with severe hearing loss may require more teacher attention and sign language. Teachers appear to favor the inclusion of students with mild or slight hearing loss because they require the least amount of support in general education settings. The inclusion of students with profound hearing loss is less favorable among teachers because of their perceived poor language and the difficulty to accommodate the learner in the classroom. Most teachers (86%) were opposed to including students with severe and profound hearing loss in general education classes. Responses indicated that teachers thought that including a student with severe or profound hearing loss in general education environments would require additional assistance (e.g., use of sign language). Teachers do generally not feel responsible for differentiating instruction to meet diverse learning needs. Thus, the research noted that modifying and differentiating instruction was not a skill that came easily for any teacher (novice or experienced). Teachers generally exhibit a more positive attitude toward the inclusion of students that require less responsibility.

Similarly, Skrug and Dier (2016) reported that the highest level of support was given to the inclusion of students with mild hearing loss who required the least amount of modification in curriculum and instruction. Teachers indicated that the severity level of student disability and the amount of additional teacher responsibility required were the two factors that influence teachers' perspectives toward inclusion. For about one third of the sample, these two factors appeared to be related to the belief that including students with severe hearing loss would have a negative effect on the general education class. Students with mild hearing loss have been portrayed as not being significantly different from students without distinguished disabilities and, therefore, were more likely to be welcomed in the inclusive classrooms. Accordingly, students who do not reward the teachers' investment of time and effort do not attract the same level of concern and attachment as students who reward their teachers' efforts by being successful. Students who reward additional teacher time and effort, such as those with only a mild level of hearing loss, remain within the teachers' "instructional tolerance". Students who remain outside this sphere of tolerance are easy to reject. Instructional tolerance is related to teacher efficacy, which is directly related to such outcomes as student achievement, and classroom management. When students fail, teachers do not experience the traditional reward and satisfaction that teaching affords: the reward of seeing a student do something he could not do before. Teachers' perceptions of their own professional competence are eroded by the failure of some students to learn, and

by continual challenging behaviors in the classroom resulting to negative attitudes towards further inclusion of this category of learners in their classroom.

Also, motivation or teachers' incentives comes from many sources. Some teachers are motivated by their love for children and teaching, some by more external factors such as a stable salary or the advantages of having more leave time. In this context, motivation and incentive are interchangeably used to convey the same meaning. To the extent that education leaders understand what motivates teachers, it may be possible to provide incentives in ways that promote positive attitudes towards the inclusion of children with hearing impairment into their class. Most teachers are motivated by a complex combination of internal and external factors. There is little doubt that incentives, when used wisely can be an important means of improving teachers' attitudes, deployment, and pedagogical practices for children with special needs. Incentives are an important tool available to education managers seeking to shape teacher behavior towards the atypical population in the school (Stoiber, Gettinger, & Goetz, 2017). Incentives are sometimes used by government and education leaders to motivate teachers of special needs children to behave differently, presumably in ways that promote positive attitudes towards special needs children. For example, motivation or incentives are designed to attract current teachers to remain in teaching, to accept assignments in remote schools, accept inclusion of children with disabilities or to use new teaching methods in their classroom for overall academic development of all children including those with disabilities. The idea of using incentives to shape teacher behavior is not new. Virtually all educators understand the basic idea.

The findings of this study are in line with the study of Billingsley (2014) which reported that overall, all the teachers expressed that they needed motivation and supports, noting that they did not have to successfully integrate a student with hearing impairment into the general education classroom without adequate motivation or incentive that commensurate their extra work. Of the general education teachers, 79 % reported not having adequate or no motivation, 78 % lacked personnel support, and 73 % report needing adapted tools. Forty-nine percent of the special education teachers reported they needed but did not have appropriate class-size and 48 % reported that they needed in-service workshops with the general education teachers. Participants pointed out that such outright lack of motivation can only give them negative attitudes towards the inclusion of these children. The study concluded that to promote positive attitudes toward inclusion there is a need for adequate provision of incentives. The most effective incentive system for a country is based on a careful study of what teachers in that country value. In designing incentive systems, it is useful to ask teachers what matters to them and then try target the design of incentives towards those actions. It is also important to note that addressing issues of teacher incentives is just one part of developing an effective system for attracting, retaining and motivating highly qualified teachers to raise the learning of students with disabilities. There are several other areas

related to working conditions, including support from other education colleagues, professional expectations, and professional autonomy and authority.

Special education teachers are valued mostly for their commitment to serve a vast dimensional group of children with educational needs, which is one of the most hardest and most complicated jobs in the field of education (Payne, 2015). Thus, there is a need to improve teachers' motivation to promote good disposition of teachers towards special needs children including those with hearing impairment. It has been noticed that there is a disparity between pay structures of the younger and experienced teachers in inclusive schools. Research has shown that most regular teachers who do not teach these children are satisfied with the salary they have, but those teachers teaching these children are not paid according to their functions and increased responsibilities. They all earn the same amount of salary so the wage structures require further attention (Khan, 2011). This disparity brings negative attitudes towards inclusion. Intensity of job satisfaction depends on the discrepancy of expectations of person, what he or she wants and what he or she gains. Job satisfaction is an extent to which a teacher feels positively or negatively motivated about different aspects of job, e.g. job conditions, timing, structure, compensation, tasks, collaboration and responsibilities (Williams, 2014). Pay is thought to be a key factor behind job satisfaction besides promotion, recognition, job involvement and commitment. Job satisfaction by inclusive education teachers is a feeling they have about their job which is a factor that determines whether the teacher would have negative or positive attitudes to work.

Conclusion

Several factors are reported to be associated with negative attitudes of teachers towards inclusive education of children with hearing impairment in Nigeria. These factors include poor competency of teachers, lack of incentives and severity of the hearing loss. The ability of all education stakeholders to adopt appropriate measures that circumvent these challenges is key to providing sustainable inclusive education for children with hearing impairment.

Recommendations

- i. Ongoing teachers' development programs in form of conferences, workshops and special training should be organized for teachers by Government to equip them with the right pedagogical knowledge, practical skills and the attitudes needed to foster inclusive education of children with hearing impairment.

- ii. The Government, nongovernmental organization, schools and corporate bodies should provide monetary and other forms of incentives to teachers to strengthen their vigor toward including these children in their classrooms.
- iii. Specialized training should be provided for teachers on deaf education to empower their capacity and knowledge on instructional accommodation for all children with hearing impairment regardless of the severity of the hearing loss.

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Reading Literacy of Foreign Language Students Commencing Their Tertiary Studies

Pavla Machová, Olga Vraštilová

Abstract

Reading is a receptive skill and together with listening it is the main source of information input. Effective mastery of reading skills thus gains more and more importance in the contemporary world deluged with information but also with the growing desire to reach the highest possible degree of education. Our experience is quite opposite though and due to it we designed a project evolving around reading competences of university applicants. It focuses on three areas: reading competence of students when commencing their tertiary studies, their reading experience since their early childhood and the requirements of the subjects and disciplines they should master during their tertiary studies. This article gives the framework of the project carried out at the Faculty of Education, University of Hradec Králové and it looks in detail into, describes and comments on the general vocabulary knowledge of the foreign language students when commencing their university studies.

Key words: literacy, competence, vocabulary.

Čtenářská gramotnost studentů cizích jazyků na počátku jejich terciárního vzdělávání

Abstrakt

Čtení jakožto receptivní řečová dovednost je spolu s poslechem hlavním vstupním kanálem informací. Efektivní zvládnutí čtenářských dovedností tak v současném světě plném informací nabývá na důležitosti. Naše zkušenost je však poněkud odlišná. Proto jsme se rozhodli navrhnout projekt, který se soustředí na čtenářské dovednosti studentů, kteří přicházejí ze střední školy na univerzitu. Ten se soustředí celkem na tři oblasti: čtenářské dovednosti studentů na počátku jejich terciárního vzdělávání, jejich čtenářskou zkušenost od dob raného dětství a potřeby a požadavky předmětů a disciplín, které by studenti měli v průběhu terciárního vzdělávání zvládnout. Tento článek rámcově pojednává o celém projektu a blíže se zaměřuje na oblast znalosti slovní zásoby studentů filologických oborů na počátku jejich univerzitního vzdělání.

Klíčová slova: gramotnost, kompetence, slovní zásoba.

Problem Statement and Overview

Research shows that reading literacy in the 21st century has been deteriorating and together with this fact the ability of critical reading and processing written texts diminishes as well. Reading is one of the most important inputs of information for learners of any age. Being able to process written texts, distinguish relevant from irrelevant information, interpreting the message and gaining the most important facts is one of the prerequisites of university studies. Our experience shows that university applicants enter our university with underdeveloped reading skills which significantly decreases their ability to get oriented well in the academic sphere and it remains one of the fundamental problems they encounter during their tertiary studies. This situation gets even worse in the foreign language studies where students are required to process materials in a foreign language and study from them.

Our research was designed around the factors we believe influence reading competence of the university students and hence affect greatly their ability to process academic texts and gain relevant information from them.

Reading literacy has been subject to research and investigation in the past eighteen years. It is considered one of the most important competences in the contemporary rapidly developing society. More and more information overwhelm us and we are expected to process it. The major goal of education has shifted from the push for learning facts and information by heart to the ability and competence of being able to find the

information and use it. Reading literacy thus opens doors to the worlds of various areas of our everyday lives. The PISA 2009 definition of reading literacy ("Reading literacy is understanding, using, reflecting on and engaging with written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society." (PISA, 2009, p. 23)) clearly proposes that reading literacy is fundamental not only within the educational framework but it is cardinal for any other field of interest within the society. "... reading skills are essential to the academic achievement of middle- and high-school students." (Holloway, 1999 in PISA, 2009, p. 21) Receptive skills are sources of input during our education and the longer and more complex the education is, the more important the role of these skills becomes. "Reading is probably the most important skill for second language learners in academic contexts." (Grabe, 1991, p. 375) The ability to read well is considered to be the most important L2 academic skill needed by students. Since the success depends very much on the ability to grasp information learned through reading the students should be able to prove various text-processing techniques—e.g., identify main ideas and details, distinguish between fact and fiction, deduce from the text, summarize, synthesize, extend textual information to further tasks, etc. (Grabe & Stoller in Celce-Murcia, 2001, p. 189)

PISA investigates three components of the reading competence: gaining information, processing information and text evaluation. The first two components are to be found directly in the text, the third one examines also the ability to use the reader's previous experience or ability to look for connections. In the PISA 2009 report the Czech Republic was placed 27th with the below-average score of 478. This alarming fact was almost immediately reflected in the massive promotion of reading and reading competences within the society. Reading without the frame of school education has almost vanished and together with it the competence to process the text, gain information or find connections based on the reader's previous reading experience. Today school children do not read for pleasure very often. If they do not read in their mother tongue we cannot expect them to read in a foreign language. Then the Krashen's statement below has a rather bitter interpretation.

"Studies showing that reading enhances literacy development lead to what should be an uncontroversial conclusion: Reading is good for you. The research, however, supports a stronger conclusion: Reading is the only way, the only way we become good readers, develop a good writing style, an adequate vocabulary, advanced grammatical competence, and the only way we become good spellers." (Krashen, 2004, p. 37)

Krashen thus advocates the proposition that reading competence influences all other language skills together with spelling, vocabulary and grammar of the language.

"Vocabulary is clearly an important factor in reading, as readability studies show, but is only one of a range of factors." (Nation & Coady, 1988 in Nation 1990, p. 116) According to Nation, learners should have a vocabulary of at least 3000 headwords to be able to read unsimplified texts. Many learners who want to carry on with their studies to

the tertiary level may have less than this. (1990, p. 119) Nation thus suggests improving the situation by: a) learning vocabulary by direct study; b) learning vocabulary through reading (1990, p. 119)

“Vocabulary is an essential component of any language, and thus it is a critical part of second language (L2) acquisition (e.g. Nation, 2013; Willis & Ohashi, 2012). Vocabulary knowledge influences both productive skills (speaking and writing) and receptive skills (reading and listening), and is considered a key predictor of general language proficiency (Alderson, 2007); Laufer & Goldstein, 2004). L2 learners often acknowledge that the lack of or poor vocabulary knowledge is the main reason for their difficulties in acquiring, comprehending, and using a L2 (Nation, 2013)” (González-Fernández & Schmitt, 2017, p. 280)

“Vocabulary is an essential aspect of language, but in many L2 classroom contexts, not much time is allocated to vocabulary teaching and learning. This lack of attention to vocabulary is a problem, because as Laufer and Nation (2011) point out, learning vocabulary entails the acquisition of thousands of items with many different aspects per item, and requires multiple encounters and considerable time.” (González-Fernández & Schmitt, 2017, p. 287)

Graves distinguishes between incidental and intentional vocabulary learning. “Incidental vocabulary learning refers to the process of acquiring vocabulary knowledge when the specific lexical item being learned is not the main focus of either the teaching or learning activity (Ender, 2016).” (González-Fernández & Schmitt, 2017, p. 288) It is obvious that a big source of incidentally acquired vocabulary is extensive reading. A key issue is the number of exposures necessary to learn vocabulary incidentally from context. There is no agreement among the researches about the number of these encounters—Schmitt (2008) posits that eight to ten exposures are sufficient however some other researchers suggest that as few as three encounters are enough for successful acquisition of the meaning of a word (Reynolds, Wu, Liu, Kuo & Yen, 2015). Little research has been carried out on incidental learning from listening as the second receptive skill. (González-Fernández & Schmitt, 2017, p. 288)

“In order to ensure this repeated contact with words, teachers need to find ways to increase students’ L2 exposure inside and outside the classroom, and one of the most common ways of doing this is by extensive reading, which is considered a very positive way of increasing and improving learners’ L2 vocabulary (Uden, Schmitt & Schmitt, 2014).” (González-Fernández & Schmitt, 2017, p. 289)

These findings bring us back to the initial premise of our research. Reading competence is closely connected with vocabulary knowledge and vocabulary knowledge is connected with extensive reading.

1 Research Framework and Rationale

Long-term experience with the English language level of the applicants of EFL studies at our faculty indicates that with compulsory foreign language education in our schools shifted to earlier years (from the 4th grade (age 9) to the 3rd (age 8); at many elementary schools optional language education begins as early as in the 1st or 2nd grades (ages 6 or 7)) paradoxically the language level of the learners does not rise. On the contrary it decreases. With the time our first-year students have more difficulties with a smooth transfer from their secondary schools to academic education. We were wondering what reasons may be behind this unfavourable situation—unfavourable both for the undergraduates and for us, their university lecturers. We decided to look closer into the situation and we designed a project that, as we believe, may answer some of our questions. Our project focused on three areas: reading competences of our students when commencing their tertiary studies, their reading experience since their early childhood and the requirements of the subjects and disciplines they should master during their tertiary studies.

Reading competences of our first-year students were examined through a standardized reading test taken from Cambridge First Certificate in English. Males reached better scores in the reading test than females (M–84.14% in the first test part, F–67.71%; M–75.53% in the second part, F–68.40%). (For more detailed information of this part of the research please see Machová, Vraštilová in Hradec Králové Journal of Anglophone Studies, 2017, vol. 4, No. 1, pp. 113–122).

Reading experience of these students was enquired by a questionnaire designed and piloted for this purpose. Altogether 65 questions were posed and 67 students participated. Eleven questionnaires were incomplete or illegible and therefore not considered for evaluation. The survey is therefore based on 57 respondents out of which 43 (75%) were females and 14 (25%) males. Altogether 91% of the students stated that they were read to by their parents or siblings when they were young and out of this number almost 56% believe that having been read to in their early childhood influenced positively their attitudes to reading, improved their vocabulary and their reading as such. The total of books read within one year differs significantly. The most frequently occurring answer of the respondents regarding their elementary school reading was between 4–5 books per year (22 cases). At secondary school the highest frequency is 7 and more books and is represented by 24 respondents. Here we can induce a strong influence of the *maturita* exam that may influence number of books read within one year. The beginning of the students' tertiary education represents 7 and more books read with the highest frequency – 20 respondents. Lower numbers of books read are represented quite equally (between 9 and 14 respondents). Interestingly there is one respondent declaring that (s)he has not read a single book within a year. This field is

to go into more details and will be published as a separate article focusing on this particular problem area.

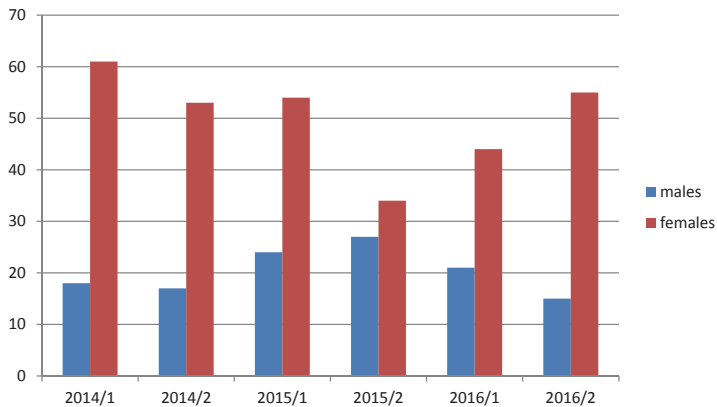
The requirements of the subjects and disciplines our students should master during their tertiary studies were investigated at departments educating these students. Vocabulary required for better understanding of the field of study which from the point of view of the teachers might cause problems was divided into two general sections—common vocabulary and specialist vocabulary linked to theoretical studies. The first group of words was represented by, e.g., currency (B1 level of the CEFR), effort (B1), feature (B2), survey (B2), initial (B1–B2), distinguish (B2), etc. The second group of problem words was represented by the terms like burial (C2), root (B2–C1) or vowel (B1). From the examples given we can judge that problem vocabulary from the common section belongs to B1–B2 groups of the CEFR which means that it does not exceed the borderlines of expected vocabulary knowledge of the applicants/first-year students but it still causes problems in comprehension. On the contrary specialist vocabulary ranges from B1 to even C2 groups of CEFR. This indicates that this problem vocabulary is unknown to our applicants/first-year students and should be dealt with somehow before it is actually used in particular academic disciplines where it is required both for the reception and for the production of the students.

To obtain a starting point for the third area of our research project we looked closer into the vocabulary knowledge of our applicants. Therefore we decided to analyse the vocabulary-focused part of our entrance examination tests. We were lead by the assumption that vocabulary knowledge is essential for the reading-comprehension process (e.g., Nation 1990) and therefore the knowledge of vocabulary at an appropriate level at the beginning of tertiary studies is crucial for the smooth and successful transition of the secondary-school students into their tertiary studies.

Our entrance examination test consists of four parts focusing on grammar, vocabulary, find-the-mistake exercise and British/American studies and culture.

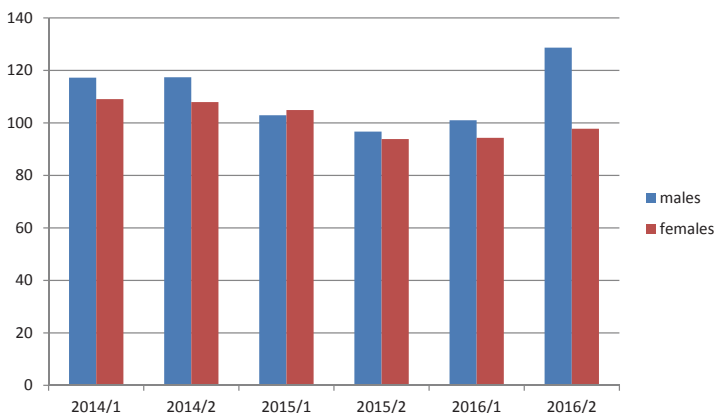
The vocabulary part was examined in three consecutive years (2014–2016) and the results were compared. Number of applicants, proportion of males and females and best and worst performances with respect to the sex were put into graphs and charts.

The following graphs show the proportion of males and females at entrance exams for a 5year TESOL programme, and their average results.

*Graph 1***Entrance Exams – Applicant Numbers**

The graph shows the numbers of applicants in six entrance exams. As is apparent female applicants always outnumber the male ones which is not surprising. It is common knowledge that in the teaching profession female teachers have prevailed in the modern history of our schooling system.

Graph 2 shows the average results at entrance exams within the same time period.

*Graph 2***Entrance Exams–Average Points**

As the graph shows the average results at entrance exams have a tendency to rather decrease with time with the exception of 2016/2 test. This particular result is quite interesting since the tests are of the same format and difficulty and the difference between individual tests is usually just a few days. The details of individual test results follow in Chart 1.

Chart 1

YEAR	2014/1	2014/2	2015/1	2015/2	2016/1	2016/2
Males number / average points	18 / 117.22	17 / 117.41	24 / 102.92	27/96.70	21 /101	15 / 128.67
Females number / average points	61 / 109.08	53 / 107.94	54 / 104.89	34/93.85	44 /94.31	55 / 97.76

The numbers of average points are in the majority of cases lower for females; the last round of 2016 hopefully shows the beginning of an upturning trend although for females the number is still very low—the pass mark for successful test completion is 120 points (out of 200).

Interestingly, in almost all respective rounds female scored both the highest and lowest numbers of points:

Chart 2

YEAR	2014	2014	2015	2015	2016	2016
Highest number	185 F	194 F	175 F	182 F	159 1F + 1M	166 M
Lowest number	39 F	14 F	36 F	34 M	35 F	48 F

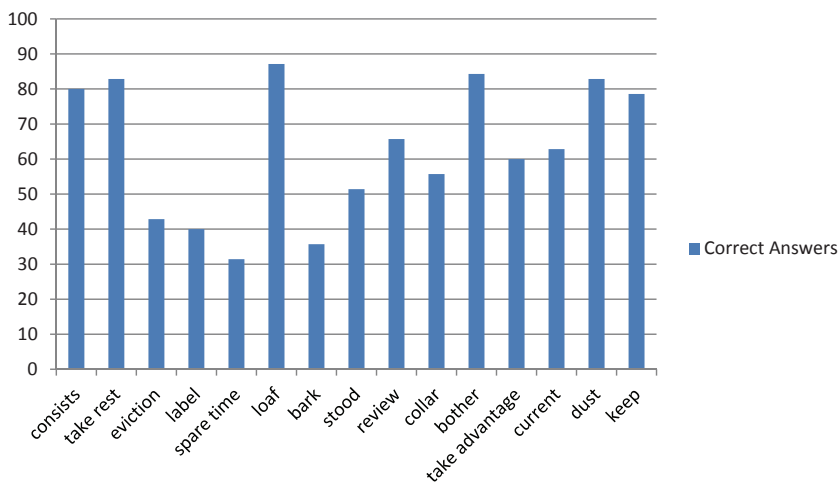
This particular entrance exam part is a multiple-choice test where applicants are to mark their choice out of four possibilities for thirty sentences in a vocabulary oriented exercise. Having analysed this part of the tests we can say that the applicants seem to have difficulties with general vocabulary one would think should be well known by the time they successfully complete secondary school education. Surprisingly, there are even words like remember and remind, capable and suitable, etc. that cause problems (in the examples below the correct answer is given in bold, each of the answers is followed by the percentage for individual choices scored in one round of the test):

1. His new flat _____ of two small rooms.
a) **consists** 80 % b) contains 5.71 % c) includes 11.43 % d) numbers 2.86 %
2. The patient had to _____ a rest after that long walk.
a) lay 4.28 % b) make 11.43 % c) sleep 1.43 % d) **take** 82.86 %
3. They found some squatters living in their house so they asked the court for a speedy _____.
a) discharge 5.71 % b) attainment 20 % c) **eviction** 42.87 % d) excerption 27.14 %
(not marked answer 4.28 %)
4. You should stick this _____ that says "Fragile" on your parcel.
a) advice 10 % b) advertisement 17.14 % c) **label** 40 % d) sign 31.43 %
(not marked answer 1.43 %)
5. I would love to go to the exhibition with them but I am afraid I cannot _____ the time.
a) leave 5.71 % b) loose 62.86 % c) sale 0 % d) **spare** 31.43 %
6. She has gone to the baker's to buy a _____ of bread.
a) bar 5.71 % b) bit 4.28 % c) **loaf** 87.15 % d) pound 1.43 %
(not marked answer 1.43 %)
7. You should not hack the _____ off trees because they might die.
a) **bark** 35.71 % b) bit 32.86 % c) loaf 21.43 % d) rind 8.57 %
(not marked answer 1.43 %)
8. The new house _____ in a beautiful spot deep in the woods.
a) placed 14.29 % b) rested 1.43 % c) situated 32.86 % d) **stood** 51.42 %
9. There was an interesting _____ of the film in the paper last week.
a) comment 14.29 % b) resume 14.29 % c) revision 5.71 % d) **review** 65.71 %
10. Tom turned up his _____ to protect his neck from the cold wind.
a) cap 4.29 % b) **collar** 55.71 % c) scarf 34.28 % d) sleeve 4.29 %
(not marked answer 1.43 %)
11. Sorry to _____ you, but have you go the keys to the storeroom?
a) see 2.86 % b) **bother** 84.29 % c) apologize 4.29 % d) excuse 8.56 %

12. We advise the visitors to our museum to _____ advantage of our family tickets.
a) get 31.42 % b) have 2.86 % c) make 4.29 % **d) take** 60.0 %
(not marked answer 1.43 %)
13. Last month's trade figures were bad, but the _____ ones are even worse.
a) current 62.85 % b) instant 4.29 % c) latter 11.43 % d) newer 21.43 %
14. The attic of the old building was thick with _____ as nobody had cleared it
for years.
a) dust 82.85 % b) powder 1.43 % c) rust 4.29 % d) sediment 10.0 %
(not marked answer 1.43 %)
15. Where do you _____ your pencils? In that drawer?
a) close 4.29 % b) guard 7.14 % c) hold 10.0 % **d) keep** 78.57 %

Graph 3

The Proportion of Correct Answers



As seen from the graph, the proportion of correct answers differs. According to the CEFR (from the English Vocabulary Profile web site) the correct words belong to the levels between A2 and C2 (*consist* – B1, *take rest* – B1, *eviction* – C2, *label* – B1, *spare time* – A2, *loaf* – B2, *bark* – C2, *stand/stood* – A2, *review* – B1, *collar* – B1, *bother* – A2, *take advantage* – B1, *current* – B2, *dust* – B1, *keep* – A2). As apparent from the outlined levels of the

correct answers, there are a few challenging sentences with correct answers exceeding the expected language level of the applicants (*eviction*, *loaf*, *bark* and *current*). Though they exceed the B1+ level, they have quite a good proportion of answers – *eviction* – 42.87 %, *loaf* – 87.15 %, *bark* – 35.71 % and *current* – 62.85 %. None of them belongs to the lowest number of correct answers registered in the sample of the test (*spare time* – 31.43 % or *label* – 40 %). Words belonging to A2 level are used correctly from 31.43 % (*spare time*) to 84.29 % (*bother*). Words belonging to B2 level are used correctly from 52.85 % (*current*) to even 87.15 % (*loaf*). Words belonging to C2 level are used correctly from 35.71 % (*bark*) to 42.87 % (*eviction*). These data indicate that even the words from the lowest levels can be used correctly from quite a low number of cases (31.43 % of *spare time* or 40 % of *label*) to the second highest proportion of answers (*bother* – 84.29 %). Words belonging to B1 group do not have a balanced representation either. They range from 40 % of *label* to 82.86 % of *take rest*. B2 to C2 words are used correctly from 35.71 % (*bark*) to 87.15 % (*loaf*) of cases.

These findings lead us to the conclusion that the vocabulary knowledge of our applicants is not balanced which, in our opinion, is closely connected with the data of PISA research (above) and declining reading literacy in the society.

2 Ideas for Further Practice, Reflection

With respect to the literature survey above the findings of our research posit a link between reading competence and the vocabulary knowledge of the secondary school-leaving students. "... a vocabulary of at least 3000 headwords is needed to read unsimplified texts with any ease. Even with 3000 headwords, around 5 or 6 percent of the words on each page (about 15–18 words) will be unknown. Guessing is possible at this density, but the vocabulary load is still high. Developing a large reading vocabulary as quickly as possible is a very important priority for learners who wish to pursue academic study in English." (Nation, 1990, p. 116) Our suggestions to improve the current situation are as follows:

1. More reading should be employed in the ELT process at secondary schools. Students should be exposed to both simplified and unsimplified texts of various topics. CLIL may be one of the ways that could lead to the improvement of reading and increase of vocabulary of secondary school students. In this way more lexical items are acquired and reinforced through incidental vocabulary learning and further encountering of these items in the texts.
2. Each specialist discipline at the tertiary level of studies should have either its own glossary of words that are essential for understanding of the discipline and its issues, which students should master by a given time, or an introductory course of key terminology crucial and indispensable for understanding of the particular field

of study, e.g. at the beginning of the semester. Alternatively own study materials of the particular institution can be equipped with a glossary at each chapter to reduce the load of new terminology.

3. A dictionary for related fields of study (e.g., philology) could be created by the institution with multi-lingual equivalents of essential terms for individual disciplines/subjects of the tertiary study.

The findings of the vocabulary test analysis also propose that formulation of a multiple-choice vocabulary test is a very responsible and demanding task especially with respect to the selection of words and contexts of the proper language level.

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The changing role of sociolinguistics and its reflection in ELT

Linda Chmelařová, Ondřej Duda

Abstract

The paper deals with the question whether and to what extent the Internet, social media and modern trends in human communication impact the language use of students of English. The authors used a qualitative method of focus group in order to gain relevant data. The results of the inquiry include the comments of teachers of English (native speakers) teaching future English teachers at the Faculty of Education, Palacký University Olomouc on features of the English language the students encounter.

Key words: sociolinguistics, approach, new media, social sites, the Internet, language, use of language, English language, globalization.

Mění se role sociolingvistiky a její reflexe v ELT

Abstrakt

Příspěvek se zabývá otázkou, zda a nakolik ovlivňuje internet, sociální média a moderní trendy v lidské komunikaci používání jazyka u studentů angličtiny. Autoři použili pro sběr relevantních dat kvalitativní metodu focus group. Výsledky šetření zahrnují poznámky učitelů angličtiny (rodilých mluvčích), kteří učí budoucí učitele angličtiny na Pedagogické fakultě Univerzity Palackého v Olomouci, o rysech anglického jazyka, se kterými se studenti setkávají.

Klíčová slova: sociolingvistika, přístup, nová média, sociální síť, internet, jazyk, používání jazyka, anglický jazyk, globalizace.

Introduction

In recent years a new phenomenon has appeared that has completely changed people's lives, including the way they communicate: the existence of the Internet and social media. The stream of information and cultural intake has become unified as a large number of people in the developed world absorb it from the same source. The question which arises is whether this change has caused, or might cause, a new situation in which all the other factors lose their previous role of forming the language people use and labelling those people according to their language features. In this article the authors attempt to add a new perspective that considers modern trends in human communication that should be researched by modern sociolinguistics. In tertiary education in the Czech Republic the Internet and its impact on language use are worth analyzing, most importantly when future English teachers are taken into consideration. For that reason, the practical part of the article includes comments of teachers of English (native speakers) teaching future English teachers at the Faculty of Education, Palacký University in Olomouc on features of the English language the students encounter in course books and also the features they adopt from reading and watching various content on the Internet.

1 Sociolinguistics and globalization

As a result of globalization distances have shortened and possibilities have grown, which has influenced all fields of human activity, including sociolinguistics, because of the dissemination of language to all parts of the world through media. For example, Blommaert, writing in 2010 at the dawn of smart electronic devices, commented that '*globalization forces sociolinguistics to unthink its classic distinctions and biases and to rethink itself as a sociolinguistics of mobile resources, framed in terms of trans-contextual networks, flows and movements*' (Blommaert, 1). Moving human activities onto the international level gives rise to new demands on language competences and at the same time brings new language forms and features as a result of the mixing and mutual influence of languages. The mobility of people involves the mobility of linguistic and sociolinguistic features. '*The possibility of frequent electronic contact with the country of origin, for instance, can generate new forms of language innovation...*' (Blommaert, 5). When referring to the virtual world, Blommaert presents the Internet as a wide and virtually uncontrolled space for language learning. Crystal (2006) sees the Internet world as an

extremely fluid one, in a permanent state of transition, lacking precedent, struggling for standards, and searching for direction. In fact the Internet has replaced television, which brought the first cultural and linguistic explosion on a very limited scale when compared to the Internet, which serves as an 'individualized medium' which reacts to the specific demands of each individual.

2 The young generation and the Internet

The generation which is currently most influenced by the Internet (not only from the linguistic point of view) is the generation of teenagers and adolescents. Young people use the Internet for different reasons from the previous generations. The space which was previously devoted to electronic communication through emails and chats has moved to a new dimension of social media sites, such as Facebook, Instagram, YouTube, and sites that store and stream films and TV series. The stream of videos and information is easily accessible and targets especially at the young generation, which is susceptible to acquiring new language forms and variations. In most cases, there is a common shift of language from a neutral, standard form to a more informal one containing many slang and emotionally coloured words. When concentrating on the use of English (as it is undoubtedly the lingua franca of the Internet these days) this virtual shaping of linguistic performance has an influence not only on native speakers but also on students studying English, who use the Internet for both study purposes and personal amusement in their leisure time. As the interest of these students has moved from absorbing standard and neutral English from coursebooks and literature (which were the only sources in the past) to popular sitcoms, TV series, and YouTube videos, it is probable that their language use will be different, especially when the level of formality and choice of vocabulary are taken into consideration. Regarding this process, it will be even more difficult to state what an accepted language form looks like and where the borders of correctness and incorrectness lie, especially in the case of speech.

3 Traditional approach versus new approach

The language we use is strongly influenced by many factors which shape the choice of language forms on all levels, from phonetic variations through the use of vocabulary to syntactic structures and appropriate (situationally determined) style. Language represents a fundamental factor which can reveal a lot about the environment we come from. The field which studies the relation between language and society is called sociolinguistics. *'It's a field of study that assumes that human society is made up of many related patterns and behaviours, some of which are linguistic.'* (Spolsky, 3) While in the

past the social and geographical aspects used to be quite stable, which means people lived in a restricted environment in the group of their social community, thanks to the changes in recent decades travelling and information exchange have achieved new levels. Human contacts with unknown cultures, together with their language variations, are much more frequent and intense. Thus, the traditional categorization of sociolinguistics dealing with the factors which influence one's language performance appears to rest on quite an unstable base.

Sociolinguistic development begins in early childhood, when children generalize the linguistic models which they follow. As Hudson (1980) points out, these patterns come first from parents, then peers, and then adults. The peer-oriented stage seems to be strongly influential as it evidently wins over the parents-oriented period. Furthermore, it is obvious that many children of first-generation immigrants develop accents distinguishable from those used by their non-immigrant friends and family members. Hudson also mentions Hockett (1950), who refers to this phenomenon as *age-grading*. According to this concept, there are some linguistic forms that are used only by children in the peer-oriented stage and can be transmitted from one generation to the other but are not used by adult speakers.

In the past it was believed that the community which surrounded a person was further classified within the society depending on the social class it represented. The work of William Labov in New York established for the first time the term 'social stratification'—the study of class distinction in speech—which later became a major topic in sociolinguistics (Spolsky, 39). Stockwell points out that *'this is not an easy concept to define precisely or measure accurately, and the stratification of class into different levels varies considerably across nations and cultures'* (Stockwell, 11). Nevertheless, it is evident that each society or language community has a certain hierarchy of wealth, power, and prestige defined by people's economic and social status. As these people share a similar cultural background and mostly communicate with one another, their mutual influence is indisputable. The feeling of inclusion in a social group might be stronger than geographical factors because *'a speaker may show more similarity in his language to people from the same social group in a different area than to people from a different social group in the same area'* (Hudson 43). In the case of the United Kingdom "higher-class" people tend to exhibit similar linguistic features as they passed through the system of public schools and do not display regional traits in comparison to lower-class people, who show a greater variety of language, depending on the region they live in. On the other hand, Hudson (1980) emphasizes that this situation is common for the UK but in other countries such as the USA or Germany "top people" show more of their region of origin through language. Nowadays, many borders among countries in the developed world exist only formally, and today's means of transport and 'virtual travelling' are achievable for people who are then culturally and linguistically enriched by other nations. The same situation is visible in terms of social classes. Even though there are

still obvious social differences within society, human intellectual interests and activities have moved to the virtual world of the Internet, which is available to people regardless of their social class. Moreover, in contemporary society social class is no longer a fixed state imposed by external circumstances, as people tend to choose a status represented by their lifestyle, clothes, attitudes, language, etc.

The other factors which traditionally played a role in the varieties of the language used for communication are age and gender. As mentioned above, some life stages are more important than others for adjusting the choice of language features to the language used by the people around oneself. Moreover, the peer-oriented stage, which also involves the period of puberty, has quite specific traits determined by closer socializing with peers and the struggle to achieve a better position in the social group. Holmes (2008) mentions the heightened use of vulgar expressions and slang, which are typical of this period but later, in adulthood, diminish. Either the expressions sound odd when uttered by older people or social conditions such as having children and meeting other young families make the use of "inappropriate" language undesirable. Considering the aspect of age, it still seems to play an important role in the use of linguistic variations, as people of the same age tend to search for information of a similar character and choose similar sources across borders and countries. As in the past, for instance, teenagers are "uniformed" by their language use and differentiated from the other age groups, no matter where they live.

In terms of gender *'the differences between the way males and females speak were long restricted to grammatical features, such as the differences between masculine and feminine morphology in many languages'* (Spolsky 36). Later, more attention was paid to distinctive female and male language varieties. Stockwell (2002) refers to Trudgill, who explains that men aim to achieve more streetwise "macho" standards, whereas women are more commonly judged by appearance and thus tend to use more prestigious features and hypercorrection. Freeman and McElhinny (2001) extend this idea by referring to Lakoff, who *'argues that a female speaker faces a double bind. If she doesn't speak like a lady, she will be criticized, ostracized, or scolded. If, on the other hand, she does learn to speak like a lady, she will be systematically denied access to power on the ground that she is not capable of holding it...'* (McKay & Hornberger, 231). The differences can also be seen in the choice of lexical items. It is generally stated that women's talk tends to be associated with the home and domestic activities, whereas men's talk tends to be associated with the world outside and economic activities. Despite these differences, in western socialization, as men and women co-exist more closely on both the personal and professional levels, their roles often merge, which also affects the language they use. *'Not surprisingly in Western urban communities where women's and men's social roles overlap, the speech forms they use also overlap'* (Holmes, 160).

4 Situational factors influencing language performance

The use of language is not entirely determined by factors existing independently of the communicative context; the specific social situation plays a big role too. The language used for communication with people in a close relationship is different than the language used on a more professional or formal level. The same can be said about the language used for written and oral communication. This characteristic, commonly called *register*, is one of the main terms used in sociolinguistics. Hudson (1980) differentiates register referring to '*varieties according to use*', in contrast with dialects, defined as '*varieties according to user*'. It is generally stated that people use more correct and formal forms when talking to people with whom they have a more distant relationship. '*The better you know someone, the more casual and relaxed the speech style you will use to them. People use considerably more standard forms to those they don't know well, and more vernacular forms to their friends*' (Holmes, 236). A similar distinction can be seen between written and spoken forms of language. The written form is commonly more standard, with fewer slang expressions and contracted or informal forms. Nevertheless, it is evident that a large amount of communication is losing its formal and standard character, which was more common in the past than now. Formal situations do not place such high demands on linguistically formal performance and especially the young generation might find it difficult to be verbally efficient and formal at the same time.

5 Research aims and methodology

The aim of the paper is to consider the Internet, social media and modern trends in human communication and their impact on language use of students of English. For the purposes of gaining relevant data, the authors used a qualitative method of focus group (Miovský, 2006). The results of the inquiry include the comments of teachers of English (native speakers) teaching future English teachers at the Faculty of Education, Palacký University in Olomouc on features of the English language the students encounter in course books and also the features they adopt from reading and watching various content on the Internet. There were five respondents between the ages of 25 to 60, with gained formal education in ELT, at the time of the inquiry teaching English at the Institute of foreign languages, Faculty of Education, Palacký University in Olomouc, to future teachers of English. The theme is quite general, for that reasons, the authors asked each respondent several specific questions. Thus everyone had the chance to comment on the questions, provide specific answers and also react to others' opinions. For the purposes of this paper, the participants of the discussion will be referred to as Teachers 1–5, or T1–T5.

The participants of the focus group were asked these questions:

1. Do you think that students' language performance is influenced by new media such as the Internet, social sites and others in the areas of writing and speaking and why? Examples?
2. Do you think that students use more formal or informal language in writing and speaking and why? Examples?
3. Do you think that students use slang expressions in writing and speaking and why? Examples?
4. In terms of vocabulary do students use abbreviations or acronyms (typical for social media, e.g. lol, asap, btw, brb, etc.) in writing or speaking and why? Examples?
5. Do you think that students use informal language typical for speaking in writing and why? Examples?
6. Do you think students use more American way of pronunciation than British one and why? Examples?

6 Results and discussion

The answers to the questions were categorized according to the nature of the questions, answers, or features they referred to.

Table 1

Question	Category	Answer
Social Media and the Internet	Influence on writing	Yes
		Yes, to a large extent
		Yes, becoming more informal
		Yes, to a certain extent
	Influence on speaking	Yes, to a certain extent
		Yes
		No, more listening
Use of informal language	Writing	More formal
		Both formal and informal
		More informal
		Rather informal
	Speaking	Tend towards greater informality
		Frequently informal
		More informal

Question	Category	Answer
Use of slang expressions	Writing	Yes, to a small extent
		Occasionally
	Speaking	Yes
		Definitely yes
Use of abbreviations or acronyms	Writing	To a large extent
		Minimally
		No, never observed
	Speaking	No
		No, never heard
		I don't think so
Use informal language typical of speaking in writing		No
		Yes, very often
		Occasionally, yes
		Yes, in relation to the overuse of phrasal verbs
American versus British pronunciation	More American	Sometimes without realising it
		Definitely yes
	More British	Blend of both
		Yes, more than American
		Mix of Czech and British features
		Mix of Czech, American and British features

The answers to the first question *'Do you think that students' language performance is influenced by new media such as the Internet, social sites, and others in the areas of writing and speaking, and why? Examples?'* varied. The teachers agreed that the influence of media on the language that students use is significant, yet more when writing is being considered. For example, teacher 5 commented on the globalization of English: *'I think the diversity of "Englises" online (where regional dialects, formal and informal English, and grammatically incorrect English are often presented side by side) has certainly influenced students' written language. Blogs and social media (Facebook, Twitter) have perhaps normalized a more colloquial style of written English also.'* In terms of speaking, an interesting point was emphasized by Teacher 2, that *'students listen more than they actually speak'.*

The second question: *'Do you think that students use more formal or informal language in writing and speaking and why? Examples?'* was answered with a variety of responses. It can be concluded that the students at the Institute of Foreign Languages who have been taught by the respondents tend to use more informal language in writing and definitely informal language in speaking. This is, of course, individual, as some tend to be more formal in their writing and informal when speaking. Teacher 2

suggested that the informality in speaking *'seems to be more related to TV than social media'*.

The third question regarded the use of slang expressions: *'Do you think that students use slang expressions in writing and speaking, and why? Examples?'* It is clear that slang expressions are more common in the spoken form of English than in the written one. These expressions include, for example, phrasal verbs and idioms. Teacher 2, however, pointed out that sometimes these might unintentionally be used wrongly. Similarly, the fourth question regarded the use of abbreviations or acronyms: *'In terms of vocabulary, do students use abbreviations or acronyms (typical of social media, e.g. lol, asap, btw, brb, etc.) in writing or speaking and why? Examples?'* The results show that the tendency to use abbreviations or acronyms is very low or non-existent. For example, Teacher 4 commented: *'I have seen very little evidence of this. I think one reason may be that they are not used so much in Czech social media, which many of the students I teach are probably more familiar with.'*

The answers to the fifth question *'Do you think that students use informal language typical of speaking in writing, and why? Examples?'* show that students tend to use more informal language typical of speaking in writing. As noted by Teacher 2, *'it can sometimes be unintentional'* or, as Teacher 5 said, *'often a conversational style is used in their writing'*.

The answers to the sixth and final question *'Do you think students use an American way of pronunciation more than a British one and why? Examples?'* suggested that students use a more American-influenced way of pronunciation, sometimes supplemented with British features. Teacher 2 said: *'It depends on the student—but on the whole, I would say that most students have a tendency for using American pronunciation over British. Most often they have a blend of both.'* Nevertheless, as pointed out by Teacher 5: *'This is really difficult to determine. However, I would say that a British pronunciation is marginally more common among students'*; this is difficult to measure, study, and draw conclusions about, and to do that the authors would need to launch a more extensive inquiry.

To conclude, the authors are aware of the fact that the English language is evolving and ever-changing. This fact was also emphasized by Teacher 3, who generalized that: *'The English language is a 'live' medium and will be subject to continual change; it will continue to evolve'*. Therefore, this paper is a starting point for more extensive feature research intended to be conducted by the authors in the near future.

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Child's home preparation for school – views of parents. Followed, or unheeded issue in education?

Barbora Petrů Puhrová

Abstract

The aim of this article is to address a rarely researched area of home preparation in the Czech environment. The area has a significant role in the education process of the child. The article focuses on the shift in the parent's approach to this joint effort of the child and parent and the research description of strategies parents apply to reach the goals set for home preparation. The theoretical bases for the article are the main subjects of home preparation—parents accenting the social context of their family and the specification of the parent's involvement in home preparation in the context of differences in education, sociocultural environment of the parent and the influence of home preparation on the child's success in education. In the qualitative research through interviews with selected parents of lower primary school pupils we show the means of the parent's intervention in home preparation influenced by individual strategies of the parent. The forms and means of involvement in home preparations perceived by parents are presented as particular examples of the research results. The results of interviews with 15 mostly university educated parents show that the aspects of the parent's involvement in home preparations are clearly structured according to the differences in personal and professional conditions and preferences of the parent with the child at lower primary school.

Key words: home preparation; homework; family; parent involvement; interview.

Domácí příprava dítěte na vyučování – pohledy rodičů. Sledovaná nebo opomíjená problematika ve vzdělávání?

Abstrakt

Cílem příspěvku je poukázat v českém prostředí na málo zkoumanou problematiku domácí přípravy jakožto významného článku v procesu vzdělávání dítěte. Zaměřujeme se na proměnu přístupů rodiče k této společné činnosti rodiče a dítěte a výzkumným popisem strategií rodičů k dosažení stanovených cílů v domácí přípravě. Teoretická východiska představují hlavní subjekt domácí přípravy – rodiče s akcentem na sociální kontext rodiny a specifikaci zapojení rodiče do domácí přípravy v kontextu rozdílnosti vzdělání, sociokulturního prostředí rodiče a vlivu domácí přípravy na úspěšnost ve vzdělávání dítěte. V rámci kvalitativně orientovaného výzkumného šetření formou interview s vybranými rodiči žáků prvního stupně základní školy poukazujeme na způsoby intervence rodiče v domácí přípravě ovlivněné individuálními strategiemi rodiče. Rodiči vnímané formy a způsoby zapojení do domácí přípravy jsou představovány jako konkrétní příklady výsledků výzkumného šetření. Z výsledků rozhovorů s 15 převážně vysokoškolsky vzdělanými rodiči vyplývá, že aspekty zapojení rodiče do domácí přípravy jsou jednoznačně strukturovány podle rozdílnosti osobních a profesních podmínek i preferencí rodiče s dítětem na primárním stupni vzdělávání.

Klíčová slova: domácí příprava; domácí úkoly; rodina, zapojení rodičů; rozhovor.

Introduction

Upbringing and education are a priority not only in the school educational environment but primarily in the social context of families with children of school age. The particularity of the child's home preparation for school, on all the levels of education from primary to tertiary, is currently an important topic. It is necessary to pay attention to it primarily because home preparation has been researched only rarely in the Czech pedagogical environment. In this study we focused on the area of primary education in which the extent of parents' involvement has the highest intensity mainly in the first and second year of school education (Šulová & Škrábová, 2012). Compulsory education of the child is a new responsibility for the parent not only in the cooperation of the family and school but also in the involvement in home preparation for school in their home environment. A family and each of its members participate in a system of interactions

in which transformation of social personality traits occurs and models of behavior of all the members are created (Řezáč, 1998). Primarily, we focus on the parent, his/her individual differences that he/she uses to delimit their own autonomy reflected in their style of upbringing. A specific area reflecting different approaches of the parent are the issues of home preparation for school.

1 Theoretical Basis

The area of home preparation and homework has been researched very rarely in the Czech pedagogical environment. The issues related to homework were notably researched by Maňák (1992), Bělohradská, Solfronk & Urbánek (2001), home preparation of upper primary school pupils was researched by Jursová (2011), and Pospíšilová (2011) compared parents' approaches to home preparation in relation to differences in education of parents. Šulová & Škrábová (2013), Šulová (2014) focus on parents and starting pupils in home preparation. Smetáčková (2014) provides attitudes of teachers to home preparation. They perceive the education of parents as a certain indicator of success of the child at school. The importance of home preparation for achieving good school results is primarily in the form of repeating and practicing the given curriculum. Currently, there is only a study published by Holte (2016), who discusses the point and effects of homework assigned to lower primary school children. It is the lack of Czech studies and published works covering home preparation that leads us to contribute to the area. Home preparation is characterized as a systematic activity which includes cooperation of the pupil, parent, and teacher (Šulová, 2014). This study adopts Jursová's (2011) approach in which she defines home preparation as all activities, primarily homework, that the pupil does with the aim to "be ready for schooling"—such activities that were not assigned by the teacher directly but that make education easier (the preparation and check of teaching aids, revision, practice, and potential broadening of schoolwork, etc.). The definition of home preparation is thus broadened to include homework that is considered to be a school assignment to be done in a home environment outside school. However, these are considered as activities including home parent-to-child teaching, help with assigned school tasks (projects, preparation of aids, delivery of messages from school, etc.), but also extracurricular activities dedicated to support the child's learning (discussions over books, encyclopedias, the child's hobbies, playing a musical instrument, joint conversation of the parent and child, etc.). Desforges & Abouchaar (2003, p. 42) claims that the involvement of parents and their support has not only a strong impact on the development of the child during first school years but also creates a positive influence on their school results in adolescence.

The role of the parent in home preparation should be perceived in many various aspects. For one thing, it supports the child's ability to cope with the beginning of school

education and gradual increase in school's demands related to learning, preparation, and school results. Further, the parent is a role model in behavior and strengthens their child's psychological development and work, social, and enculturational habits. Equally, the parent influences the degree of the child's autoregulation which is reflected in the level of motivation and confidence in their own abilities known as self-efficacy—a specific capability to manage pressure and solve problems. The cognitive part of autoregulation is related to the child's strategy used to complete an assigned task (Šulová, 2014). There we see the reflection of the parent's approach to the mentioned constituents, i.e., the ability of the parent to motivate and strengthen the child's belief in managing assignments as well as systematically and coherently apply strategies in leading the child through home preparation—autonomously or control-oriented. Many teachers, parents and children accept home preparation for school as a necessary and valuable part of the process of learning (Muhlenbruck, Cooper, Nye, & Lindsay, 2000). Opponents, primarily those refusing homework, maintain the opinion that the effort, time investment, and stress during home preparation are ineffective and do not yield desired results (Kralovec & Buell, 2001; Kohn, 2006, 2007).

The findings in the area of the parent's involvement in home preparation compared in foreign researchers, e.g., Carvalho (2001), Warton (2001), Pomerantz, Moorman, & Litwack (2007), Whitaker & Hoover-Dempsey (2013), Farrell, & Danby (2015), argue that:

- parents become involved in home preparation because they think that it helps their child succeed at school;
- parents become involved in home preparation because they care about the future of their child and his/her future education;
- parents consider home preparation to be an emotional, relationship, communicational and, most importantly, time investment into the education of their child, often accompanied by negative behavioral aspects (stress, time pressure, inability or impossibility to help their child);
- parents do not dispute the role of home preparation, they consider it as natural and obligatory arising from their role of the parent.

1.1 Influence of a Family on Behavior and Learning of Their Child

The key factor influencing the child in his/her life is the institutional upbringing and education—school (Figueiredo & Valadao Dias, 2012). We can see the connection between the school and family in home preparation. Grolnick & Slowiaczek (1994) described three types of involvement in school education of the child. The model describing the predictors of parental involvement in school education of the child is described in the area of behavior (involvement in school activities and home environment, help with homework, questions related to school education, the so-called asking “as at school”), the second area is cognitive-intellectual, and the third is the area of personality.

The social context of the family is conditioned by the character of personal relations and inner relations in the family as well as by the influence of the wider social environment affecting family culture that is formed by standards, rules and, to a certain extent, it regulates these relationships (Výrost & Slaměník, 2008). The social status, prestige, and the qualification of parents and primarily the cultural capital of the family can present an important role in this respect (Katrňák, 2006, in Matějů & Straková, 2010). According to Carlson, Funk & Nguyen (in Bray & Stanton, 2013), the process of socialization forms behavior, attitudes, and social skills of the child so that he/she could function as a member of the society. We see the parent as a personality promoting a certain educational style and using strengthening prosocial behavior. As we rely mostly on foreign studies concerning home preparation and homework, we adopt and further use the term *parent involvement* for parents who are involved in home preparation. Grolnick, Benjet, Kurowski & Apostoleris (1997) define parent involvement as selflessness, willingness to dedicate their effort and resources in a given area. Parent involvement in the child's education is characterized as the parent's behavior and acting supporting school success of their child. It includes manifestations of parenthood, communication with the school, teaching at home, participation in school events and activities, alternatively volunteering (e.g., School Board). It further includes their involvement in informal educational activities that support the schooling of their child. Respecting socio-economic means of families, we find out that parent involvement of in school and outside school activities differs. The education and socio-economic status of the parent influences their involvement in the education of their child (Spera, 2005, in Bray & Stanton, 2013; Pomerantz, Moorman & Litwack, 2007) and is a certain predictor of school success. We adopt the idea that parents in their involvement in home preparation accept school requirements, try to be a part of the school education mechanism, and many of them actively participate in school affairs in many forms and with different intensities (Štech & Viktorová, 2001). Conditional is "home management" of time, space, but also targeted attention, motivation monitoring, and emotion control of the parent and child that set the character and quality of home preparation (Xu, 2013). Home preparation provides parents with rapport about the degree of achieved results, information about their child's advance in learning. At the same time, the variability of homework forms motivates and encourages the child's interest in the given subject or curriculum.

2 Research

In the qualitatively oriented research we chose the method of semi-structured interviews to find out:

How do parents get involved in home preparation of their child?

What is their role in home preparation?

What are the specifics that appear during homework in families?

Among fifteen respondents there were thirteen women-mothers and two men-fathers. The respondents live in marriage with two or three children. One woman was a divorced single parent of two under aged children. The majority of the respondents were university educated, only four respondents had high school education with *maturita* (the Czech high school leaving examination). Another interesting aspect of the research were five parents who were teachers by profession, other parents work in different industries and fields. The profession of teacher was reflected in their experience as they can see it from the other side, from the perspective of school and direct experience with the school environment, the opportunity to compare different children, parents, and peculiarities of school education. The children of our parents were pupils of lower primary school in various years of education, 1st to 5th class. Parents who had more than two children provided answers primarily about the child that participated in lower primary school education because some of the parents already had experience with home preparation with their older child. The majority of the children were in their 3rd to 5th class of lower primary school.

3 Research Results

We analyzed the data through opened coding with creating categories that resulted from identically resonating answers of parents in the interviews. Each parent has different approach to the system of home preparation. There are, however, certain common attributes—when the child returns home from school, a short rest, snack or free time follows. The child is then asked to complete assigned homework, prepare aids or study and revise for the next day. Some parents confirmed that children started to complete their homework by themselves, others had to be persuaded or even forced, sometimes they had to be asked repeatedly to be active and complete their homework despite the fact that the parents tried to follow the same procedure. Help is understood as education—teaching the child or supervising in homework completion (Silinskas, Niemi, Lerkkanen & Nurmi, 2012). The participating parents emphasize the importance of checking and monitoring the child, they describe it as checking of how their child com-

pleted his/her homework. The parents confirm, in accordance with Mayall (2012), that homework is assigned so that its point is not the child's work itself but its completion is conditioned by monitoring and parental check. The parent O said how he strategically navigates his son in the organization of environment that can help him manage home preparation: *"I can see that he can see a meaning in all that, the tidy desk, the rule of tidy desk, the tidy monitor, and the empty waste bin. Taxonomy, that's how it starts. Then comes the homework, written, but I have not been able to teach M to study continuously, this is what I try, to teach him to study. This is what I want him to accomplish, to revise for every subject, that would satisfy me, that we prepared for school."*

This limits the parents in time that is taken away from their other activities in the framework of housework, free time for rest or satisfying own interests. Rage, anger or even yelling become involved in the interaction with the child as the result of tension created by time pressure and often disharmony in the communication with the child. Mother P confirms that: *"Because he stays by his own words, that what he says is true and I oppose him and explain that I have more experience. Before anything else, I try to explain in plain language, liken it to something but when it's not successful, yelling comes... and this is how things are and there will no further discussion. There is no time for that."* Time, then, is an indicator of pressure and stressing factor in home preparation that influences communication and interaction between the parent and child. Therefore we are in agreement with Cheung & Pomerantz (2012) that parental motivation of the child contributes to the child's success in learning and the overall management of educational requirements. Simultaneously, conveniently chosen motivation brings the child to gradual autonomy and independence in home preparation (Froiland, 2013).

To be good at School

Good school results mean good grades for the parents but, on the other hand, the child's satisfaction at school and not fearing school are also important. The [arents talk about the link between the personality of the teacher and their approach to children several times. The approach is reflected in the child's relationship to homework and motivation of the child to learn. School results are connected with immediate reality, are linked to the family's cultural capital, mainly to the parents' interested in personal and educational development of the child, not only about individual qualities and needs of the child. The parent's trust in the child's social rise and attempt at increased school effort and engagement manifested by more intensive home preparation are reflected in the effort to assure the child's success (Kaščák & Betáková, 2014). Based on our data, it is evident that girls-daughters have, in most cases, lesser or almost no problems with learning at school, home preparation, and the management of the system and rules.

The Child's Personality—"a Special Creature"

Individual qualities, temperament, the child's learning aspirational level but also whether he/she is firstborn, his/her gender and age appear to be important. Mother D supports this argument: *"She is a special creature, I say. She is enthusiastic about everything, won't sit for a while, she keeps playing, pretending to be a teacher so you have to play with her."* More attention is paid by the parents to the child at the beginning of school education and leads to gradual independence in later years of primary school (learned habits, rituals, and stereotypes). This is supported by a parent of three children: *"The middle child, L, is basically an independent, diligent girl, only something, do you understand that, do you want something, yes, mom, train, do you want to know something, exercise or English."*

Differences were observed among genders of the children during interviews, the mothers invest more of their time to the children. The mothers argue that it is possible due to their time availability, perhaps they automatically become more involved than the fathers. The fathers spend more time at work and dedicate more of their time to the children during weekends or individualized activities (sports) and help more often with homework in mathematics. Mother R points at the role of the father in home education: *"Well, my husband talks a lot with them, he talks to them as if they were his peers, so they stare at him, he finishes explaining, and knows many things, so even before bed time they ask him and he explains. I do not have the patience. He does."* Only two fathers agreed to participate in the research sample, their involvement in home preparation is very committed. One of the fathers considers himself to be an extraordinary father in home preparation: *"I try to show them unnoticeably that I also go to school, that I have to learn, that I got an A from my exams, as we discussed, that I don't pay only half my attention to it, that I try to do my best. I try to lead them secretly so that they can see me as their role model."* This father also criticizes the approach of his wife-mother in preparing their son and takes this task upon himself: *"My wife, with all due respect, does not have such authority (laughs), she also tries, she does not have feel for that, yes, she helps him but goes to do something in the kitchen and leaves him alone, then comes back, finds out that he did it wrong and she starts to yell at him... however I can make time for that and sit with him, check his work, as a result it takes more time, you have to check him, and it is ineffective in short."*

Problematic Teacher... and the Teacher Again

In this category, we refer to the teacher's personality in the child's life. It influences the child's attitude to school, learning, and interferes with the family experience—negative experience with a problematic teacher that was reflected in the teacher's approach to the child and raised doubts connected with considering the change of school, interfered with the cooperation with the child, parents, and school is clear from the answer

mother K provided: *"She was such a sad child, she came home, did not smile, we suffered a lot."*

Intensive and emotional situations in the family can be caused by negative experience of the child at school and it is consequently reflected in the family environment. Such experience is described by mother P: *"Well, it was the first class, it seemed to be OK at the beginning, then came some problems with the teacher and our child, it was a vicious circle. The second class was much worse. When we changed school, in the third class, everything changed rapidly. My son is de facto independent, has good results, learns well. He is livelier, he was even before, the new teacher can lead him, so everything has improved and preparing for school is not so difficult as it used to be in the second class. I was preparing together with my son when he was in the first class but my husband spent much more time with him so I don't know..."* Problems at school were reflected in their home environment, the child lacked motivation to fulfill his duties, home preparation became an unpleasant part of the day for the whole family: *"I think we were very important for him but the constant school pressure led to such situations that we were looking for his faults, we gave the poor soul a hard time, we pushed him but it didn't have any effect."* The mother's response is the reflection of perceived experience of the relationship between school and family. The parent is aware that the teacher does not understand the child and tries to help the child any means possible. It is obvious that the mother cares about the satisfaction of her child at school and strives for a change that was eventually achieved by the joint effort of the family.

Not Always Are Things Easy

We observed that most parents see a very strong bond between the success of the child and home preparation. It is evident that when the child is successful he/she does not have any problems with learning, home preparation is easier for both the child and parent, mother I: *"It is true that E works on them immediately. I do not have any problem, she does it immediately, no matter how much homework she has, mostly cloze tests, she found them herself, she works on them during the summer."* The parent's satisfaction is expressed in the statement of mother J: *"The kid, if interested, finds it herself, I don't do anything special in this respect."* She continues: *"... it is probably because she is good at it, really good at it..."* On the other hand, if the child faces difficulties during learning as mother H adds: *"... she needs an individual approach, slow approach, and it is true their teachers changed a lot, now she has had the teacher for long time, so it is good, when she comes to me I have to explain everything slowly,"* then the parent has to invest more attention and energy in order to help their child during home preparation so that the child is more successful and satisfied. Mother H does not want her daughter to miss classes because every day in the school environment benefits and helps her daughter to manage the curriculum. She does not have "that much" to do in the home environment because she learns at school. This concerns the contact and relationships of children in

classes as well. As the mother explains in the interview, she is glad that her daughter looks forward to school more than she used to because her teacher understands her difficulties and rather motivates her to learn. The teacher also does not look for mistakes, does not bring them to the child's attention and approaches her individually. Therefore the mother feels more satisfied (maybe even because the teacher taught her older son) and trusts the teacher: "... she needs to catch it at school, the teacher explains differently, and my daughter is among other children."

Conclusion

As our findings and the study by Moroni, Dumont, Trautwein, Niggli & Baeriswyl (2015) confirm, parental aspirations are intensely connected to socioeconomic conditions of the family. Similarly, Grolnick, Benjet, Kurowski & Apostoleris (1997) gather that a strong factor influencing the parent's approach to the child's school education is the family's socioeconomic status. They also confirm that the mothers (without partners) showed lesser involvement. The parents who are more confident of their own ability to help their child are more capable of functioning as parents–teachers.

In this article we demonstrated a specific area of the child's education, i.e., the child's home preparation for education from the perspective of the parent. The home and school environments seem to be necessary for the child's and parent's development of cultural and emotional capital. This cultural-educational process–progressing through the whole life—is connected to both educational realities (Mayall, 2012). We aimed the research, based on interviews with the parents, at direct responses of the parents as main participants in the child's home preparation for education. The results brought, at least partially, the image of the parents and their approaches to home preparation. As far as overlapping of home preparation into future education is concerned, we consider it as a key to pay more attention to this area in future researches. The researches should accent the understanding of the complexity of the family environment system in which home preparation occurs.

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Forensic psychotherapies for curbing offending behaviors among clients with intellectual disability in Nigerian rehabilitation centers

Orim Samuel Orim & Orim Matthew Ashike

Abstract

This study investigated forensic psychotherapies for curbing offending behaviors among clients with intellectual disability (ID) in Nigerian rehabilitation centers. A survey of 750 participants comprising of experts in intellectual disability, psychiatrists, psychotherapists and psychiatric nurses, school psychologists, rehabilitators in special centers from South-west and South-south Geopolitical Zone of Nigeria was done through expert sampling technique to select sample for the study. Two research questions were formulated to direct the study. A 45 item questionnaire with a 4 point rating scale and reliability coefficients of 0.84 to 0.85 was used to canvass opinions of participants on the perceived effectiveness reality therapy, cognitive behavioral therapy and systemic therapy in curbing offending behaviors in clients with ID in Nigerian rehabilitation centers. The data collected were statistically analyzed using Multiple Regression Analysis. The findings revealed that reality therapy, cognitive behavioral therapy and systemic therapy are effective therapeutic packages for curbing forensic and offending behaviors in clients with ID in Nigerian rehabilitation centers. It was recommended that these therapies should be used through the collaborative partnership with experts in special centers, government and management of the rehabilitation centers to help these clients overcome these psychological problems.

Key word: psychotherapies, offending behaviors intellectual disability.

Forenzní psychoterapie pro omezování urážlivého chování mezi klienty s mentálním postižením v nigerijských rehabilitačních centrech

Abstrakt

Tato studie zkoumala forenzní psychoterapie pro potlačení urážlivého chování mezi klienty s mentálním postižením (ID) v nigerijských rehabilitačních centrech. Výzkumu se zúčastnilo vybraných 750 odborníků, expertů na problematiku mentálního postižení, psychiatrů, psychoterapeutů a psychiatrických sester, školních psychologů, rehabilitačních pracovníků ve speciálních centrech z jihozápadní a jižní geopolitické oblasti Nigérie. Ve studii byly formulovány dvě výzkumné otázky. Dotazníkem, který obsahoval 45 položek se čtyřbodovou ratingovou stupnicí a koeficienty spolehlivosti 0,84 až 0,85, byly zjišťovány názory účastníků na účinnost terapie realitou, kognitivní behaviorální a systémové terapie při potlačování protiprávního chování u klientů s ID v nigerijských rehabilitačních centrech. Shromážděná data byla statisticky analyzována s využitím vícenásobné regresní analýzy. Zjištění ukázala, že terapie realitou, kognitivní behaviorální terapie a systémová terapie jsou efektivní terapeutické balíčky pro omezení forenzního a protiprávního chování u klientů s ID v nigerijských rehabilitačních centrech. Bylo doporučeno, aby terapie, které by pomohly těmto klientům překonat psychologické problémy byly používány ve spolupráci se speciálními centry, vládou a managementem rehabilitačních center.

Klíčová slova: psychoterapie, útočné chování, mentální postižení.

Introduction

Awareness of how intellectual disability may contribute to offending behavior is relatively well established. The association between intellectual disability and forensic and offending behaviors has long been suggested (Hart-Kerkhoffs, 2009; Chesterman and Rutter, 2013). Although the problem of people with intellectual disability (ID) as victims of crime has been well recognized, the known characteristics of people with intellectual disabilities (ID) also make them vulnerable to becoming perpetrators of crimes. They are less likely to understand information about the laws, rules and their rights within and outside their communities or rehabilitation centers, and are more likely to make decisions that would not protect their rights as suspects and defendants. Evidence in-

icates there are increasing cases of forensic clients with ID facing trials in the criminal justice system – a system that does not recognize their disability. Forensic and offending behaviors are actions that break the law and cause harm to the perpetrator, victims and others. They may include physical/sexual assault, fire-setting, theft/burglary and other behaviors that only occurred once, namely possession of a blade, abduction, cruelty to animals and harassment.

Jerlarnd and Kemer (2013) demonstrated that clients with ID in structured settings like rehabilitation centers are more vulnerable to these crimes than those in the community. This is because the perpetrators see many vulnerable persons around them and want to take advantage of their vulnerability to physically assault or sexually harass them. Secondly, some consider a secured rehabilitation center as a confinement, and therefore would want to demonstrate their frustration and anger by committing crimes. Many forensic clients with ID who are guilty of any of the above offences are convicted and serving jail term. Rettision and Argern (2017) attributed this injustice to a lack of measures to identify and provide appropriate therapies to curb forensic tendencies in such individuals. There is some confusion as to whether people with ID who offend should be dealt with by health or criminal justice systems (or both). A failure to report, and therefore to prosecute, episodes of serious challenging behavior may lead to an individual believing that such behavior is acceptable, leading to further and potentially more serious acts. However, there are psychotherapies for these individuals to help them curb such offending behaviors.

In response to this, the criminal justice system in developed countries like the US and UK are making significant efforts to identify individuals with ID in the system, understand the needs of these individuals and develop care pathways that facilitate the diversion of these individuals into systems of care that are more suitable and appropriate. Furthermore, some recent writers in the field argue that forensic clients with ID may be more likely than non-intellectually disabled people to exhibit characteristics, or experience social and economic conditions, which have been generally associated with criminality, such as low self-esteem, poverty and a lack of social skills (Davis, 2002), primarily because of a failure to provide special programs to assist with the social and moral development of individuals with ID. The system is changing; the provision of diversion for such individuals into case-specific forensic psychotherapies for rehabilitation, personal adjustment and self-fulfilment of the clients has become the global best practice.

Forensic psychotherapies can be broadly described as psychodynamic treatments of violent offender clients. Forensic psychotherapies are conducted by psychologists, psychiatrists, psychotherapists and psychiatric nurses, in both the community, rehabilitation centers and other secure settings. It is understood to be a treatment that uses the therapeutic relationship to consider offending behavior and then to modify that behavior so as to promote conditions that make the client adjust and cope with

life within a structured setting or community. Forensic psychotherapy is essentially an attempt to grapple with the core issues of aggression, sexual violence, perversions and hostility and their manifestation in behaviors of clients (McBrien, 2003).

In the field of ID it is necessary to provide services for persons who may have engaged in behaviors which put themselves and others at risk. These services have a broad spectrum ranging from what one might describe as sexually inappropriate behavior – for example, masturbating in public – to life-threatening actions like physical assault. Oleyele and Fanayan (2016) noted that a lack of recognizable national rehabilitation policy in compliance with global best practices in areas of assessment and management; and manpower resources to manage forensic clients with intellectual disability have been the prominent problems facing Nigerian rehabilitation centers for clients with ID.

The management of forensic clients with ID in rehabilitation centers in Nigeria has remained a major challenge, particularly in those with moderate to severe ID. Psychological therapies have been shown to be beneficial, and programs designed for use in general population have been adapted for use in offenders who have an ID. It is appropriate that these clients that exhibit these challenges in rehabilitation centers may be identified at the earliest stages to establish preventative programs suitable to addressing the needs of such individuals. With respect to the type of treatment program deemed appropriate for intellectually disabled offenders, the type of offence and the characteristics of the offender are taken into consideration. In the case of the above listed forensic behaviors, researchers such as Denkowski and Denkowski (2003), Perkh and Garhmer (2010) and Lharat and Buhn (2013) found that Cognitive Behavioral Therapy (CBT), Reality Therapy (RT) and System Therapy (ST) are particularly effective in rehabilitation centers and community at large. CBT is a treatment that seeks overt behavioral change by teaching individuals with ID to change thoughts and thought processes in an overt, active manner which attempts to correct cognitive distortions and deficiencies by teaching emotional recognition, stress and anxiety management, cognitive restructuring, and self-reflection (White, 2003), as well as homework assignments to practice relaxation, coping, and social skills outside the therapy session. Thus, CBT uses both cognitive and behavioral interventions to correct problematic underlying cognitive processes and structures to produce behavior change.

According to Lharat and Buhn (2013), reality therapy is a series of techniques, methods and instruments aimed at helping people in order to move from ineffective behaviors towards effective behaviors, from destructive choices to constructive choices and more importantly, from a dissatisfactory lifestyle to a satisfactory one. In this treatment method, facing with reality, accepting responsibility, understanding fundamental needs, moral judgment about whether a behavior is good or no, concentrating on here and now, internal control and consequently attaining the identity of success which is directly related with self-esteem and self-confidence are under emphasis. It considers

the cause of psychological problems in peoples' choices and a personal lack of responsibility to satisfy their needs; in this therapy, people attempt to meet their own underlying needs through better choices. Socializing with others is one of the effective ways of meeting the need to belong. But how persons with ID choose to interact with and gain attention and love from others is most often at the root of their psychological dismay (Denkowski and Denkowski, 2003).

In psychotherapy, ST seeks to address people not only on individual level, as had been the focus of earlier forms of therapy, but also as people in relationships, dealing with the interactions of groups and their interactional patterns. It is an approach that works with families and those who are in close relationships to foster change. These changes are viewed in terms of the systems of interaction between each person in the family or relationship. The aim of therapy is to work on these problems by encouraging family members and loved ones to help and empathize with each other and particularly those with ID. Family therapy and systemic practice support the notion that family relationships form a key part of the emotional health of each member within that family (Rettison & Argern, 2017). It is against this background that this study is keen on investigating the extent to which CBT, RT and ST are effective in curbing offending behaviors among persons with ID.

Statement of the problem

Unfortunately, the availability of forensic services for people with ID has no history in Nigeria. The incidence of forensic and offending behaviors among the clients with ID in Nigerian rehabilitation centers is on increase becoming a threat to the success of rehabilitation programs in Nigeria. The crimes committed by these clients put their lives, victims and staff of the centers at risk. Several of these clients with ID are convicted by the criminal justice system (CJS) and are made to serve a range of jail terms. This injustice grossly negates the global best practice in forensic behavior among clients with ID.

Research and experience have shown that 70% of offenders with ID in CJS are from rehabilitation centers across the country. This becomes obvious that rehabilitation centers across the country are not making efforts to identify and expose these offenders to appropriate forensic psychotherapies designed to curb these tendencies. Research has demonstrated that forensic psychotherapies CBT, reality and system therapies are effective in reducing such behaviors. It is against this background that this research is keen on investigating the effectiveness of these therapies in curbing offending behaviors among the clients with ID. The problem of this study is to what extent do CBT, RT and ST reduce offending behaviors among the clients with ID in Nigerian rehabilitation centers?

Purpose of the Study

The purpose of this study was to investigate forensic psychotherapies for curbing offending behaviors among clients with ID in Nigerian rehabilitation centers. Specifically, the study aimed:

- i. To determine the composite contribution of the independent variables (Cognitive Behavior Therapy, Reality Therapy and System Therapy) to the independent variables (offending behaviors among clients with intellectual disability).
- ii. To examine the relative contribution of the independent variable to the dependent variables

Research Questions

The following research questions were answered in the study:

1. What is the composite contribution of the independent variables to the dependent variable?
2. What is the relative contribution of the independent variables to the dependent variable?

Methodology

The research adopted a correlational survey design and expert sampling technique was used to sample 750 participants comprising of experts in intellectual disability, psychiatrists, psychotherapists and psychiatric nurses, school psychologists, rehabilitators in special centers. The instrument for data collection was a questionnaire of 45 items with a 5 point rating scale. It was used to survey participants' opinions on the effectiveness of CBT, RT and ST on curbing offending behaviors in the clients with ID. The instrument was validated by three experts and has reliability coefficient ranging from 0.84 to 0.85 obtained through Cronbach Alpha method of determining reliability. Multiple Regression Analysis were used to show the relative and composite relationship between independent and dependent variables.

Presentation of Results

Research Question 1: What is the composite contribution of the independent variables to the dependent variable?

Table 1

Summary of Regression Analysis of the combined effectiveness of the therapies on offending behaviours

R		R Square		Adjusted R Square		Std. Error of the Estimate
0.867		0.845		0.844		1.411
SUMMARY REGRESSION ANOVA						
	Sum of Square	Df	Mean Square	F	P	Remark
Regression	716.100	3	98.872	8.734	.000	Sig.
Residual	632.411	745	1.412			
Total	1348.511	749				

Table 2 above showed that there was a significant composite contribution of CBT, RT and ST to curbing offending behavior among persons with ID. The table also shows a coefficient of multiple correlation (R) of 0.867 and a multiple R Square of 0.745. This means that 84.7% (Adj. $R^2 = 0.844$) of the variance in forensic psychotherapies for curbing offending behaviors among persons with ID is accounted by CBT, RT and ST, when taken together. The significance of the composite contribution was tested at $p < 0.05$ using the F-ratio at the degree of freedom ($df = 3/749$). The Table also shows that the analysis of variance for the regression yielded a F-ratio of 8.734 (sig. at 0.05 level).

Research Question 2: What is the relative contribution of the independent variables to the dependent variable?

Table 2

Relative contribution of CBT, RT and ST in curbing offending behaviors (Test of Significance of the regression Coefficients)

Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	(B)	Std. Error	Beta		
Constant	7.223	.351	—	27.122	.000
CBT	.564	.0199	.612	25.211	.000
RT	.435	.0267	.523	16.158	.000
ST	.689	.0412	.911	35.838	.000

Table 3 above reveals that there is a significant contribution of the independent variables to the dependent variable, expressed as beta weights. There is the correlation coefficient, CBT, RT and ST on offending behaviours. That is, CBT, RT and ST have relationship contribution on curbing offending behaviours among persons with ID. Using the standardized regression coefficient to determine the relative contribution of the independent variables, ST ($\beta = 0.911$, $t = 35.838$, $p < 0.05$) indicates most potent contributor to curbing offending behaviors, followed by CBT ($\beta = 0.612$, $t = 25.211$, $p < 0.05$) and RT ($\beta = 0.523$, $t = 16.158$, $p < 0.05$) has a contribution to curbing offending behaviours. It implies that there is a significant relative contribution of CBT, RT and ST in curbing offending behaviour among the persons with ID.

Discussion

The findings of this study revealed that CBT, RT and ST are effective in curbing offending behaviors among the persons with ID. These findings corroborated a recent studies by McBrien (2013), Taraus and Dren (2014), and Yurt and Url (2015) which revealed that the adults with ID with history of aggressive behavior, physical assault, sexual violence, theft, and self-destructive behaviors were greatly remediated with the exposure to CBT, RT and ST respectively. The findings of the study revealed that the incidence of the offence reduced by 65–70%. Recommendations were made that these therapies should be used to reduce offending behaviors among these clients to promote conditions for normal life.

Similarly, Jerlarnd and Kemer (2013) conducted a study and found that the most common type of forensic behaviors were those of physical violence and assault (21%), and sexual assault against adults, (26%), and children (23%). Both physical violence and property destruction frequently occurred in addition to the primary offences recorded (41% and 18% of the time respectively). In this study CBT, RT and ST were the most used forensic psychotherapies that proved effective in curbing offending behaviors among these clients. It recommended specialist forensic services to reduce the rate of cases of these clients in criminal justice system.

Conclusion

There is increasing prevalence of offending behaviors among the clients with ID. Several forensic psychotherapies have been proven to be effective in curbing such behaviors which will reduce the number of the convicts with ID in the CJS. This promotes conditions for successful integration into the community as well as self-fulfilment of the clients with ID.

Recommendations

- Government, community, schools and other service providers should be committed to providing support and resources to identify forensic clients or those with such tendencies and exposed them to appropriate therapies to promote acceptable behaviors among the persons with ID.
- Criminal justice system should be committed to identifying the convicts with ID for diversion into forensic services for rehabilitative purposes
- Rehabilitators should be trained and supported to use CBT, RT and ST through the collaborative partnership of relevant experts in special centers and the government or management of the rehabilitation centers to help these clients overcome these psychological problems.

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Mental Load of Secondary School Students in Educational Process in the Context of School Physical Activity

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Abstract

Demands for current school education are increasing, which is a challenge to fundamental changes in school life style in the context of the rise of civilisation diseases in children and youth. The aim of this paper is to point out that the school in the educational process, within the school subjects, also acts on the students as a stressor. Furthermore, the paper aims to highlight the danger of negative impact of mental load on adolescents' physical activity, in particular, among girls of adolescent age. Therefore, it is the responsibility of educators to look for ways to effectively compensate for this psychological burden. The research was conducted at 21 secondary schools in the Czech Republic and 11 in Poland, and a total of 4,784 participants were included in the study. The results have shown that students are most exposed to stress in natural science subjects. This psychological burden is not compensated for in the context of daily physical activity, especially among girls. The management of school and educators should be more concerned with compensating for the psychological burden of students in the educational process, and a certain benefit could be expected from the development of school physical activity programs and their effective implementation.

Keywords: Sedentary behaviour, psychological burden, stress, well-being, compensation, school subjects.

Emoční stav středoškolských studentů v edukačním procesu v kontextu se školní pohybovou aktivitou

Abstrakt

Na současné školní vzdělávání jsou kladeny stále větší nároky, což je v kontextu s nárůstem civilizačních chorob u dětí a mládeže výzvou k zásadním změnám ve školním životním stylu. Cílem příspěvku je poukázat na fakt, že škola v edukačním procesu, v rámci školních vyučovacích předmětů, působí na edukanty i stresově a že je proto povinností pedagogů hledat možnosti účinné kompenzace tohoto psychického zatížení. Výzkum byl realizován na 21 středních školách v České republice a 11 v Polsku a celkem bylo do studie zařazeno 4 784 participantů. Výsledky ukázaly, že edukanti jsou nejvíce vystaveni stresu v přírodovědných vyučovacích předmětech. Toto psychické zatížení není kompenzováno v rámci denní PA zejména u děvčat. Vedení škol a všichni pedagogové by se měli více zabývat kompenzací psychického zatížení edukantů v edukačním procesu a jistý přínos by se mohl očekávat od tvorby školních pohybových programů a jejich efektivní realizací.

Klíčová slova: Sedavé chování, psychické zatížení, stress, well-being, kompenzace, vyučovací předměty.

Introduction

Increasing psychological burden, inadequacy of the requirements of education systems, or stressful situations of the educational reality significantly disrupt the effectiveness of educational process. Particularly in the time of technological developments and acceleration of social change, including an accelerated pace of life, higher demands are being placed on adolescent school education, which makes school education one of the many stressors among the 'stress' factors (Kudláček, Frömel, Jakubec, & Groffik, 2016; Salmela-Aro, & Tynkkynen, 2012; Tavares, & Eva, 2013). The decisive role in development of inadequate educational environment is played by inappropriate educator-student interaction, forms of testing and other types of evaluation (mainly demanding oral and written tests), the teaching style and the personality characteristics of educators, as well as the personality characteristics of students, educational programs or the educational environment.

Compensating for these negative effects in the educational process is a very important task for all those involved in school education, and this task cannot be transferred only to parents, after-school leisure-time facilities, sports clubs, or community activities. The use of various forms of physical activity (PA) seems to be a necessity. According to Frömel et al. (2011), the habit of compensating for the school load, recognizing the necessity of compensating for the psychological burden, and getting satisfaction from compensating for the psychological burden by physical activity is fundamental to the adoption of a healthy lifestyle. Svozil et al. (2015) emphasise that the school has a primary role in immediate compensation for the educational burden, not only in physical education lessons, but also during breaks. The study by Crone, Smith and Gough (2006) presents the results of the analysis of qualitative studies aimed at identifying associations between PA and mental health. These analyses clearly show that there is a positive relationship between mental health and PA; the mechanisms influencing this relationship are of a complex nature and require an explanation of the inter-subject nature, mostly using psychological, biochemical or physiological knowledge. Similarly, Pate, Flynn and Dowda (2016, 47) describe positive associations between PA and mental health. According to them, physical activity promotes good mental health and improves cognitive and school performance. Therefore, it is important to create opportunities for the preferred type of PA, which has a positive impact on meeting the globally recognized recommendations for weekly PA – 60 minutes of PA daily for adolescents (European Commission, 2008; US Department of Health and Human Services, 2008) – and providing a positive influence on adolescents' well-being (Frömel, Kudláček, Groffik, Svozil, Šimůnek, & Garbaciak, 2017).

The school curriculum is still characterised by sedentary behaviour of students, including physical inactivity during school breaks (Kwon, Burns, Levy, & Janz, 2012; Ridgers, Salmon, Parrish, Stanley, & Okely, 2012). Sedentary behaviour prevails over active energy expenditure, and considering the severity of mental stress (mainly negative stress), we can expect health complications in the future in the form of atherosclerosis, high blood pressure, obesity, depressive states and other 'civilization diseases', which are now registered globally (Carrera-Bastos, Fontes-Villalba, O'Keefe, Lindeberg, & Cordain, 2011). These warnings persist even though the child and adolescent health (The Global Burden of Disease Child and Adolescent Health Collaboration, 2017) have improved worldwide over recent years. Therefore, Frömel, Svozil, Chmelík, Jakubec and Groffik (2016) highlight the importance of the school PA, which, in the form of moderate-to-vigorous physical activity (MVPA), should contribute as much as possible to day-to-day PA, thus supporting mental health of adolescents.

Among the main tasks of secondary schools is undoubtedly the preparation of students for future professional careers, not only in terms of knowledge but also in terms of their physical health. This means, among other things, to increase the physical and psychological fitness in order to build the ability to eliminate or resist the assumed

psychological burden in future professions. Schools should be involved in creating the foundation of a healthy lifestyle and in cooperation with the family, they should offer guidelines for sharing psychological burden that the educational system brings, and will, to some extent, always bring in spite of the positive changes in school lifestyle that will be put in place. These approaches are consistent with preferred priorities and strategies to promote health of general population (Fulton et al., 2016).

The aim of the paper is to point out that the school – in the educational process within school teaching subjects – acts also as a stressor, and that it is therefore the duty for all participants in the educational process to look for ways to effectively compensate for this psychological burden.

The paper aims to draw attention to possible negative impact of educational process on adolescents' mental well-being in specific school subjects in a daily school routine and to describe influence of mental load on adolescents' volume of PA. We consider the search for options of efficient compensation for the negative impact of educational process on students as a crucial duty of all concerned educators as well as the parents.

1 Methodology

1.1 Participants

The research was carried out at 21 secondary schools in the Czech Republic and 11 in Poland. The participants, involved in the study, agreed to be included in the research on the basis of signed informed consent, including their parents. The management of schools and participants were acquainted with the course of the research and the way of evaluation. A total of 4,784 participants (Table 1), who recorded the all-day course of the school day and a more detailed record of the school program in accordance with the timetable, were included in the study.

Table 1

Characteristics of the sample

Gender	n	Age (Years)		Height (cm)		Weight (kg)		BMI (kg·m ⁻²)	
		M	SD	M	SD	M	SD	M	SD
Girls	3129	16,32	1,12	167,7	6,55	59,44	9,45	21,13	3,08
Boys	1655	16,25	1,10	177,9	8,15	69,99	12,62	22,05	3,39

Note. M = mean; SD = standard deviation; BMI = body mass index

A smaller sub-sample ($n = 141$) was selected from the total sample according to evaluation of Mathematics lessons and all-day heart-beat record (Table 2). The Mathematics subject was chosen because it induced the most pronounced response in students' mental state.

Table 2:

Participants ($n = 141$) evaluating mathematics lessons

Gender	n	Age (Years)		Height (cm)		Weight (kg)		BMI ($\text{kg}\cdot\text{m}^{-2}$)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Girls	70	16.71	1.39	169.7	7.79	59.83	8.77	20.81	3.00
Boys	71	16.27	1.31	176.7	8.87	70.41	12.33	22.51	3.36

Note. *M* = mean; *SD* = standard deviation; *BMI* = body mass index

1.2 Research instruments

We used the ActiTrainer (Pensacola, FL, USA) monitoring devices that measured the volume of PA (counts), the number of steps (n), the distance travelled (km), caloric expenditure (kcal, METs), and the Polar Wearlink T31 chest belts, which enable all-day heart rate recording (HR/min). The validity of the ActiTrainer device and its reliability were verified in the survey of Neuls (2008). The intensity level of daily PA was evaluated in low PA intensities (<3 MET/min) and MVPA intensities (≥ 3 MET/min).

We also used the Indares Internet program (www.indares.com), a Czech and Polish version, which was used to record and evaluate habitual PA of participants. The methodology of the PA record is described in more detail in the research studies published previously (Frömel et al., 2016). Mental load or level of mental well-being were written down in recording sheets next to the specific lessons of a daily school schedule: W (well-being) – the lesson was OK, no signs of stress; S (stress) – the lesson was stressful with additional reasoning written down or the main cause of stress identified.

The participants recorded 0th–10th lessons in the full-time school program. In this article, we analyse school lessons ($n = 23,672$) from the viewpoint of perceived well-being ($n = 19,079$) or perceived stress ($n = 4,593$). Czech and Polish lessons are taught according to the content of subjects in the category of the native language. Czech-Polish cooperation further identified similar problems concerning adolescents' educational load in both countries. In future research, we will focus our attention on a more in-depth comparison of mental load and its potential influence on PA among adolescent population; although, it requires demanding measurement of a comprehensive nature requiring strict adherence to natural conditions, etc.

Due to the number of the records, when conducting the analysis of associations between the subjective assessment of emotional state (stress) and daily PA adolescents, we focus only on the lessons of Mathematics that showed the least favourable ratio between perceived well-being and stress.

1.3 Procedures

We introduced the initial information concerning the research at the schools in a computer classroom during a single lesson, and in order to maintain the standard school conditions, always in line with the school curriculum. The participants first registered with the Indares system, and subsequently we acquainted them with the PA monitoring method, the PA record, and the record for the evaluation of individual subjects according to the school timetable. The initial information was always given by the same research team at both Czech and Polish schools. Monitoring of daily PA and records during the educational process took place on two consecutive days so that there was a chance of recording full-day heart rate at least in one school day.

Within a week after the end of the research, the participants received individual results on weekly PA, teachers and school management received summary results for individual groups of participants.

1.4 Data Analysis

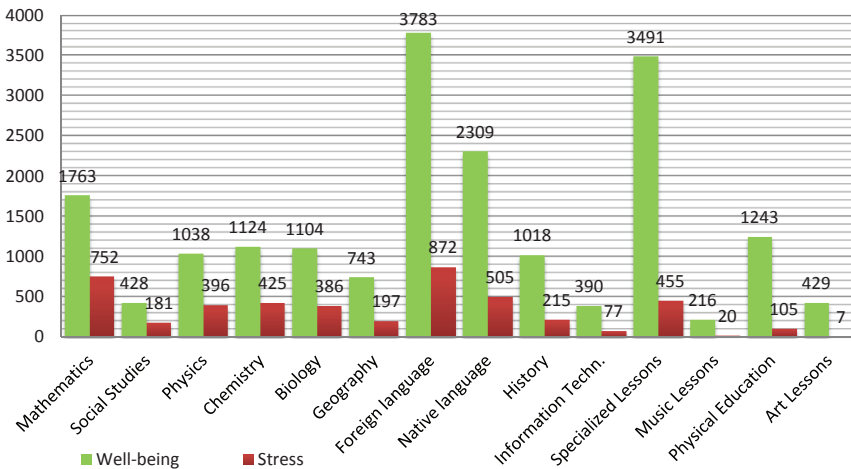
We used basic statistical characteristics, analysis of variance (ANOVA) with Scheffé Post-hoc test and ω^2 'effect size' coefficient (Cohen 1988). The analyses were performed in the Statistics 13 (StatSoft, Prague, Czech Republic) and Microsoft Excel programs.

2 Results

The school subjects that were indicated to be the most stressing ones include Mathematics, Social Sciences, Physics and other science subjects (Figure 1). As the least stressful subjects, participants selected the Physical Education, Art Lessons and Music Lessons.

Figure 1

Total number of records of 'well-being' and 'stress' in individual school subjects



The presented well-being / stress ratio (Table 3) demonstrates the order of the subjects in terms of psychological burden.

Table 3

Subjective evaluation of lessons according to feelings of stress or well-being (well-being – stress ratio)

School subject	Total number of records n = 23 672	Stress (%) n = 4 593	Well-being (%) n = 19 079	Ratio (Well-being/Stress)
Mathematics	2515	29.90	70.10	2.34
Social Sciences	609	29.72	70.28	2.36
Physics	1434	27.62	72.38	2.62
Chemistry	1549	27.44	72.56	2.64
Biology	1490	25.91	74.09	2.86
Geography	940	20.96	79.04	3.77
Foreign Language	4655	18.73	81.27	4.34
Native Language	2814	17.95	82.05	4.57
History	1233	17.44	82.56	4.73
Information Technology	467	16.49	83.51	5.06
Specialised Lessons	3946	11.53	88.47	7.67

School subject	Total number of records n = 23 672	Stress (%) n = 4 593	Well-being (%) n = 19 079	Ratio (Well-being/Stress)
Music Lessons	236	8.47	91.53	10.80
Physical Education	1348	7.79	92.21	11.84
Art Lessons	436	1.61	98.39	61.29

Associations between stress in Mathematics lessons and daily PA are significant in the indicators of steps/day in girls ($p = 0.038$) (Table 4). The average difference of 3099 steps/day between the two groups of girls is also practically significant. These results also confirm the differences between girls in kcal/kg ($p = 0.011$)

Table 4

All-day characteristics of students' PA according to their psychological burden in lessons of Mathematics (only the second lesson in the daily timetable (n = 141))

PA Characteristics	n	Well-being (n = 87)		Stress (n = 54)		F	p	ω^2
		M	SD	M	SD			
Steps/days	Boys	10365	5416	10429	4519	4.52 ^b	0.035	0.027
	Girls	10667	3726	7568	2408			
Kcal/kg/hour	Boys	7,57	3,96	7,84	3,92	4.14 ^b	0.044	0.010
	Girls	7,77	3,77	5,49	2,13			
MVPA >3 MET/min	Boys	5,12	3,22	4,83	3,04	0.17	0.682	0.003
	Girls	4,05	1,69	3,39	2,23			

Note. M = mean; SD = standard deviation; MVPA = moderate-to-vigorous physical activity; F = F-test; p = significance level; ω^2 = coefficient 'effect size'; ^asignificant difference between boys (wellbeing – stress); ^bsignificant difference between girls (well-being – stress).

Discussion

The assessment of the natural science lessons from the point of view of the psychological burden is not surprising except for the subject of Social Sciences. The results in the subjective assessment of psychological burden in Mathematics (Chvál, 2013), Chemistry (Rusek, 2013), Physics (Chalupníková, 2015) and other subjects correspond to the attitudes of pupils to these subjects. Accordingly, the research report of the project 'Quality Management in Education', which was aimed at providing information on the quality of education of secondary school students, clearly shows high emotional demands of Mathematics compared to the Czech and English Languages (Navrátilová & Výsmeck, 2012). The evaluations of Social Sciences are most likely attributed to fewer

lessons that do not meet the requirements of teachers or the interdisciplinary content, but there will certainly be other, not less important, factors.

The mental load in lessons is difficult to be diagnosed. The combination of quantitative and qualitative methodological approaches appears to be necessary in these types of research. In our research, therefore, the participants had the opportunity to describe verbally the cause of stress or well-being in a class, among which the most frequent answers included: testing and the fear associated with it, and the difficulty of the subject (or the difficulty of a given topic). Frequent mention was also made of the teachers themselves, especially the style of their teaching and their personality characteristics.

Higher levels of stress in lessons require compensation for this psychological burden in order to maintain educational health. PA (Svozil et al., 2015) is considered to be a suitable way of compensating for the psychological burden in the educational process. An essential role in immediate compensation for the psychological burden of adolescents in lessons is played by school breaks and physical education lessons (Council on School Health, 2013; Gidlow, Cochrane, Davey, & Smith., 2008; Groffik, Sigmund, Frömel, Chmelík, & Nováková-Lokvencová, 2012; Ramstetter, Murray, & Garner, 2010) and leisure-time PA after school and at weekends (Kudláček, 2016; Lokvencová, Frömel, Chmelík, Groffik, & Bebčáková, 2011). Focusing on immediate compensation for mentally demanding lessons and days is indispensable in school and after-school programs.

In our monitored associations of psychological burden in Maths classes and full-day PA, we found significant differences only among girls feeling stressed (7568 steps/day) and girls feeling well-being (10667 steps/day). In addition, these results highlight the fact that the psychologically burdened girls do not meet the minimum requirement of 11,000 steps/day in order to maintain their health (Tudor-Locke et al., 2011). Differences in daily MVPA were not significant in boys or girls, but they confirm that the psychological burden in the educational process is not compensated for by higher intensity PA and, in addition, in a shorter time. Thanks to the cooperation with the Polish schools, we found that there are similar issues concerning adolescents' mental load. A comparison and analysis of the differences in results between the Czech and Polish schools will not be possible before the follow-up analyses are conducted, because of 'topic sensitivity and educational ethics'.

The main strength of the study is a combination of objective and subjective monitoring of physical and mental stress in the educational process, while preserving natural school conditions. The focus on PA monitoring has also made it possible to maintain as 'natural' school atmosphere and the habitual educational process as possible. The biggest limitation was the involvement of continuous all-day heart rate monitoring and recording of all changes in the daily school timetable that a regular school program brings.

3 Discussion

The assessment of the natural science lessons from the point of view of the psychological burden is not surprising except for the subject of Social Sciences. The results in the subjective assessment of psychological burden in Mathematics (Chvál, 2013), Chemistry (Rusek, 2013), Physics (Chalupníková, 2015) and other subjects correspond to the attitudes of pupils to these subjects. Accordingly, the research report of the project 'Quality Management in Education', which was aimed at providing information on the quality of education of secondary school students, clearly shows high emotional demands of Mathematics compared to the Czech and English Languages (Navrátilová & Výsmeck, 2012). The evaluations of Social Sciences are most likely attributed to fewer lessons that do not meet the requirements of teachers or the interdisciplinary content, but there will certainly be other, not less important, factors.

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The high demands on an effective educational process are reflected in a higher psychological burden, manifested by an increase in the stress of students. The study has confirmed that the greatest psychological burden is experienced by students in natural science subjects. Students, who are most psychologically burdened in Mathematics lessons, do not compensate for this with PA, especially girls. School programs should allow for the most effective compensation of mental stress by immediate PA and address the issue of developing school physical programs systemically. Further research should focus on associations between the school subjects and the content of school breaks, between the school educational programs and the school extra-curricular programs, as well as the school days and the weekend days.

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Reviews

Reflective Theory and Practice in Teacher Education

Liang Mengjiao

Brandenburg, R., Glasswell, K., Jones, M., Ryan, J. (Eds.). *Reflective Theory and Practice in Teacher Education*. Self-Study of Teaching and Teacher Education Practices, vol 17. Singapore: Springer Verlag, 2017. ISBN 978-981-10-3429-9.

This book is one of the series of self-study relevant books, which articulate comprehensive aspects in teaching and practice in teacher education, based on the *International Handbook of Self-Study in Teaching and Teacher Education* (Loughran et al, 2004). Editors and authors of this book are prominent teachers, educators and researchers from different universities or institutes around the world. The volume consists of 14 chapters and represents a significant breakthrough in deepening our understanding of this taken-for-granted practice in teaching and teacher education. Contributors to this volume offer the power of nurturing reflective practice to frame and reframe teacher assumptions about the foundational beliefs and value systems in the education environment of the 21st century, in a variety of inextricable perspectives, such as gender and race. The departure of point of this volume is to represent the supportive evidence-based research to examine in detail reflective practice in a range of teaching contexts and outline a full and dynamic understanding of the nature of reflective practice toward the trend that it has been enshrined in teacher professional standards among countries. What emerges importantly as well from this volume is the evaluation and analysis of reflective practice, which highlights the promising expectancy and educational outcomes. The structure of this book contains three sections to help access to the content of complexity issues surrounding reflective practice, including the following discussion about *Big Picture Perspective on Reflective Practice*, which seeks for enlarging the complex lens of reflec-

tive practice interpretation. *Enacting Reflective Practice with Teacher Learners* broadens a new horizon of pedagogical practice for reflection by the ways of application, and *Teacher Educators Engaging in Reflective Practice* shows the role-play of reflective practice in self-study and professional teaching for educators themselves.

In the section I, Authors Glasswell and Ryan analyzed six developed English-speaking countries documents of teacher professional standards. Chapter 2 begins with arguments of epistemological challenge embedded in reflective practice, Russel and Martin proposed the importance of modeling new epistemology in teacher reflective practice by analyzing a great body of literature. Concepts including mindfulness, teaching artistry, tacit knowledge and others are regarded as the knowledge incorporation to achieve the goals related to the implementation of authentic practice in teaching. In chapter 3 Coia and Taylor address the issues of social justice involved in the teacher reflection, and call for the return to the nature of generative and effective reflective practice described by Schön. Chapter 4 discusses the influence of indigenous knowledge and experience on the prospective teacher education through the story sharing by Blair and Collins-Gearing. Authors demonstrate the different point of view in reflective practice as other prominent scholars proposed the consideration of the holistic cultural contexts. In the final chapter, Kitchen uncover the masculinity in relation to the teacher education by a new means of critical reflective practice, narrative self-study. The author goes further, beyond the traditional contemplation of the issues of reflective practice, and shows the potentials of contributors' diversity under the educational circumstance of the 21st century.

In the section II, four chapters illustrate the power of reflective practice in shaping better educational outcomes in detail, from varied levels and disciplines of teacher educational curricula. In chapter 6 Senese argues that the reflective practice in teacher education is supposed to be internalized to facilitate its real potential in teaching, rather than the cursory nature with superficial inquiries from the perspective of master's program. In chapter 7 Mclean explores the future literacy teachers' preparation by emphasis on the effectiveness of reflective practice in teacher education. In chapter 8 Bowers and her colleagues encourage teachers to have more thoughtful self-reflection through video technology. In chapter 9 Kavanagh focuses on a practice-based internal reflection of social justice and equity in teachers' training and stresses the role of educators in pre-service teacher attempts at social justice and promotion of educational equity in teaching.

In section III, the chapters represent improvement of teaching profession through the deployment of reflective practice for meeting the needs of educators' personal growth. In chapter 10 Jones considers her role as the practitioner in the research of science education by the means of self-study of reflective practice. Her analysis records enhancement of her personal education experience and capacity of critical thinking in terms of the school-based approach. In chapter 11 Jones and Ryan engage in the investigation of optimum online discussion forums to foster pre-service teacher critical

understanding of reflective practice in teaching. Their findings focus on the needs of critical reflection of educators. In chapter 12 Brandenburg and McDonough examine the sophisticated complexity of teaching environment through the analysis of critical incidents during educators' work. Their results highlight the powerful influence of reflective practice in teaching which combines critical inquiries and experience-based reflection. In the final Chapter, 13, of this section, Guðjónsdóttir and colleagues uncover the hidden benefits of collaborative supervision in relation to reflective practice. They recommend the use of self-study and core reflection in supervision for expanding their teaching competencies and advancing efficacy of the supervisor. The subjects selected by authors in the chapters of this section with different years of teaching experience show strong evidence of significant impact of reflective practice on teaching throughout the whole teaching career.

The last 14th chapter concludes the topic of further examining the nature and property of reflective practice and calls for an authentic and transformative approach of reflective practice in teaching and teacher education, even though its pervasiveness is intertwined with consideration of distinct contextual factors. What is reflective practice in teacher education and when and how to use reflective practice appropriately to promote educators ongoing renewal of learning experience to form new concepts and theories of reflective practice.

In general, *Reflective Theory and Practice in Teacher Education* offers a worthwhile pedagogical journey derived from evidence-based reflective practice. This volume provides enough space to examine the nature and better use of reflective practice in teacher education, and gives us promising opportunities and possibilities concerning profound significance of reflective practice throughout teaching profession, in other words, throughout teacher's lifelong learning. It is impossible to represent the whole complexity of reflective practice in teacher education in this volume, however, it enriches and deepens our understanding of reflective practice.

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Danping Peng: Cross-Cultural Perspectives on Pedagogical Leadership in Schools Providing Compulsory Education

Markéta Šemberová, Iva Koribská

Danping Peng: *Cross-Cultural Perspectives on Pedagogical Leadership in Schools Providing Compulsory Education*. Palacký University Olomouc, 2017. ISBN 978-80-244-5258-6.

Danping Peng has published her first monograph entitled “Cross-Cultural Perspectives on Pedagogical Leadership in Schools Providing Compulsory Education” after her several-year doctoral research. Danping Peng was born in 1988 in Sichuan province of China, studied Master’s Degree at the Sichuan Normal University, Faculty of Education, and in 2017 she completed the doctoral study program Pedagogy at the Faculty of Education, Palacký University in Olomouc, where she now works as an assistant professor at the Institute of Education and Social Studies.

The main topic of her monograph is pedagogical leadership as a summary of actions that motivate participants in the learning process and facilitate the acquisition of new knowledge, skills and beliefs. Pedagogical leadership is primarily based on how head teachers define and then monitor educational goals, observing educational programs, and provide feedback to teachers, ensuring quality not only in teaching but also in the learning process. For this reason, the author’s book is primarily intended for school head teachers and departments in schools, teachers and staff developers who deal with this issue and want to make their situation in their workplace more effective.

In the first two chapters, the author advances from general to concrete, introducing the reader to the concept of leadership, leading, instructional and distributed leadership in the context of pedagogy. It further defines the role of head teacher and teacher, their professional development and their role in the pedagogical leadership.

The third chapter deals with a detailed description of the methodology of this research. At the beginning of this chapter, the author explains that she has chosen a qualitative design that has enabled her to analyse not only the characteristics and dimensions of pedagogical leadership but also the behaviour of the people involved in this research. She proceeded according to the grounded theory by Corbin and Strauss (2015), thus emphasizing the up-to-date and modern approach of her research and analysis. Five schools in the Olomouc Region were involved in the research including one headmaster and one teacher from each school. In this section, the author describes the data analysis, using open, axial and selective coding. At the end of the chapter the author deals with the description of the triangulation of her research.

In the fourth and most extensive chapter, the author describes two developed paradigms, one of which is dedicated to the head teachers and the second to the teachers. Both deal with the characteristics of pedagogical leadership from the perspective of different stakeholders and analyze the factors influencing the pedagogical leadership in the Czech schools as well as the characteristics of a good teacher and a good head teacher from the perspective of different stakeholders. The results of the first part show that, from the teachers' point of view, the political influence and the school content can be both facilitators as well as barriers. Peer leadership is considered the most common method of improving teaching skills which, among other things, helps fill the gap between the theory and practice of novice teachers. High degree of autonomy and responsibilities and unreadiness of teachers were considered as the casual conditions of pedagogical leadership from the teachers' perspective.

High level of autonomy and responsibility of head teachers, high expectations toward head teacher and head teacher's lack of focus on leading teaching and learning were considered as the casual conditions from the perspective of head teachers. Financial limitations of schools, excessive workload and teacher retention and recruitment were considered as the barriers. The characteristic of a good teacher from the head teachers' perspective should include the ability and willingness to learn. A good headmaster should be charismatic, self-confident and experienced according to the teachers' point of view.

Both parts are complemented by the quotations and tables, which the author very clearly presents and comments. At the end of this chapter, the author comes up with a model to make the pedagogical leadership more effective in practice in the environment of the Czech Republic.

The fifth and final chapter is devoted to the sophisticated discussion, the limitations of this study, and recommendations. It highlights, in particular, the problematic parts

of the pedagogical leadership, such as the very low linkage of pedagogical leadership with assessment of a teacher, as well as obstacles to successful pedagogical leadership implementation which the author sees in the hierarchical distribution of schools, distribution of responsibilities and in further teachers' education. The chapter continues by verifying the triangulation performed within this research and the data obtained. The last part of this monograph contains a recommendation where the author emphasizes the need for regular training for all staff within the school, while underlining the need for diversity in the process of implementation of pedagogical leadership.

We consider the book to be of great benefit, especially in terms of its up-to-dateness and topicality. In spite of the author's recommendation, we would also recommend this monograph to the students of Education Management, or to the students of pedagogy in general, since they will certainly meet during their future practice.

In the future, this model might be further developed with a comparison of these issues in schools in larger cities in the Czech Republic and abroad.

Reference

Danping Peng (2017) *Cross-Cultural Perspectives on Pedagogical Leadership in Schools Providing Compulsory Education*. Olomouc: Palacký University.

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