

PSYCHOSOCIAL PREDICTORS OF BORDERLINE INTELLECTUAL FUNCTIONING OF UPPER BASIC SCHOOL STUDENTS IN ONDO STATE, NIGERIA

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Abstract

The study investigated psychosocial predictors of borderline intellectual functioning (BIF) of upper basic school students in Ondo State, Nigeria. Two hypotheses were tested with multiple regression analysis. Correlational type of descriptive design was adopted. The sample consisted 120 BIF students selected from six public secondary schools in the State through multistage procedure. Raven's Standard Progressive Matrices (RSPM) was used to screen students with BIF, while an adapted questionnaire was used to collect relevant information. A concurrent validity was ascertained on the RSPM with a coefficient of 0.79 while convergent validity was used for the questionnaire and coefficient of 0.68 was obtained. Test-retest reliability technique was adopted for the two instruments, coefficients of 0.74 and 0.82 were derived for RSPM and the questionnaire respectively. Multiple regression analysis revealed that parenting styles, locus of control and school adaptation did not jointly predict BIF ($F_{(3,116)}=1.856$, $p=0.141>0.05$), however, the best contributor to BIF was neglectful parenting styles ($\beta=0.189$). It was therefore concluded that the independent variables neither contribute jointly to nor predict BIF. It was recommended that school counsellors should guide the parents on the use of appropriate parenting style in the rearing of the BIF children.

Keywords: Psychosocial Predictors, Borderline Intellectual Functioning, Upper Basic School, Students

Introduction

The development of children and adolescents spans multiple complex dimensions, including measurable factors like intelligence. Steinberg (2024) defined human intelligence as mental quality that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment. According to the American Psychology Association (APA) dictionary of Psychology (2018) intelligence is the ability to derive information, learn from experience, adapt to the environment, understand, and correctly utilize thought and reason. It involves a range of cognitive skills, such as problem-solving, grasping abstract concepts, and engaging in critical thinking. Intellectual development is a process driven by both nature (a child's biological inheritance) and nurture (environmental facilitation and experiences). A child's learning experiences in school, family, society and culture, is essential for maximizing potential and overall life functioning.

Intellectual functioning could be described as an individual's intellectual capacity and performance as assessed by one or more of the individually administered general intelligence tests developed for the purpose. APA dictionary of Psychology (2018) defined intellectual function as any of the mental functions involved in acquiring, developing, and relating ideas, concepts, and hypotheses. Memory,

imagination, and judgment can also be considered intellectual functions, it is also called intellectual operation. It is often measured through standardized intelligent quotient (IQ) tests and encompasses various cognitive skills such as memory, attention, language, and executive functions. In psychological and educational contexts, intellectual functioning which is often measured through IQ tests and other cognitive assessments, assesses cognitive development and helps to identify intellectual disabilities or giftedness. It influences problem-solving, adaptation, and success in academics and life. It could be influenced by environmental, social, and psychological factors, including parenting styles, locus of control, and school adaptation.

Parenting styles according to Kendra (2024), are constructs used to describe the different strategies parents tend to utilize when raising children. These styles encompass parents' behaviours, attitudes, approaches and the emotional environment that a parent uses when interacting with and raising their child. Baumrind (1968), a clinical psychologist coined the original three philosophies (authoritative, authoritarian, & permissive) before Maccoby and Martin as cited in Pamela (2024), later introduced the uninvolved approach. In her research, she found what she considered to be the four basic elements that could help shape successful parenting: responsiveness vs. unresponsiveness and demanding vs. undemanding. Baumrind as cited in Iwasaki, Moriguchi and Sekiyama (2023) described parental responsiveness as the degree to which the parent responds to the child's needs in a supportive and accepting manner while parental demandingness refers to the rules which the parents have in place for their child's behaviour, the expectations for their children to comply with these rules, and the level of repercussions that follow if those rules are broken.

According to Ashley (2023), authoritarian parenting is strict, with high demands, low warmth, and little explanation for rules. Parents enforce obedience through control and punishment. Permissive parenting on the other hand is highly responsive but sets few boundaries. Parents prioritize a child's happiness over discipline, often leading to indulgence and a lack of social guidance. Authoritative parenting according to Baumrind (1968) balances high expectations with warmth and responsiveness. These parents set firm boundaries while nurturing independence and open communication. Uninvolved parenting provides basic needs but lacks emotional support and expectations. This may result from neglect, personal struggles, or work demands rather than intentional disregard.

Researchers have worked extensively on parenting styles and the effects these styles have on children's well-being in the domains of social competence, academic performance, psychosocial development, and problem behavior (Kong & Yasmin, 2022; Ndakara & Urien, 2025; Nwune & Okwuduba, 2021; Obiunu, 2018). Obadike and Unachukwu (2023) examined parenting styles as correlate of academic achievement of senior secondary school students in Anambra State, Nigeria. Findings revealed a positive relationship between authoritative parenting style and student's academic achievement, and a negative relationship between authoritarian, permissive, and uninvolved styles and academic achievement. Kong and Yasmin (2022) conducted a study on impact of parenting style on early childhood learning: mediating role of parental self-efficacy. The finding revealed that an authoritative parenting style is positively associated with learning outcomes among Chinese students. Research indicates that the authoritative style, characterized by warmth, responsiveness, and clear expectations, is most conducive to higher intellectual functioning (Yang & Zhao, 2020). Garcia and Serra (2019), examined the correlates of raising children with poor school performance: parenting styles and short- and long-term consequences for adolescent and adult development. Results indicated that the relationship between parenting styles and children's socialization outcomes does not vary as a function of school performance. Both authoritarian and neglectful parenting (lack of warmth) were related to

the worst outcomes. It was pointed out that poor school performance consistently associated with the worst short- and long-term socialization outcomes, not only during adolescence but also in adulthood. Shibli and Islam (2020), examined children with intellectual disability behaviours and parenting styles. A relationship was observed in frequencies related with behavioural outcome with reference to parenting styles.

Retnowati and Sukmawaty (2024) carried out a study to determine the effect of authoritative parenting on individual development, it was revealed that authoritative parenting was associated with cognitive development, behaviour problems, career decision self-efficacy of adolescents, empathy development, life satisfaction, social skills, emotional problems, self-esteem and approach coping strategies. Authoritative parenting positively relate to children's cognitive development, while the opposite relationship was shown by authoritarian parenting. Authoritative parenting was proven to be the best parenting pattern in improving academic achievement at school compared to other parenting patterns. The results showed that authoritative parenting had a positive effect on academic achievement because the quality of interaction and authoritative parenting brought out the courage, motivation and responsibility of children in facing their future. A study by Wafaa, Enas, Sayeda, Nadia, and Omnia (2024) found that children raised in authoritative households exhibited better problem-solving skills and higher IQ scores compared to those from authoritarian or permissive environments. These findings suggested that the supportive yet structured environment of authoritative parenting fosters cognitive development by encouraging autonomy while providing necessary guidance. It is therefore suspected that the application of appropriate parenting style could determine and predict the level of intellectual functioning of adolescents.

Locus of control, a concept introduced by Rotter (1966), refers to an individual's belief about the extent to which they can control events affecting them. A person with an internal locus of control believes they can influence outcomes through their actions, while an external locus of control implies a belief that external forces dictate outcomes. Recent studies have shown a strong correlation between internal locus of control and higher intellectual functioning. For instance, Ogar, Odey, Williams, and Akpana (2024), demonstrated that children with a strong internal locus of control tend to perform better academically and show superior cognitive abilities over time. Gawas (2022) carried out a study on the effect of locus of control, cultural intelligence and academic self-efficacy on the academic adjustment among Yemeni students in Turkey. The results show that there were statistically significant correlations among all the variables of study. Results also indicated that academic adjustment was found to be predicted from academic self-efficacy and locus of control. This is because internal locus of control often associated with greater persistence, motivation, and a proactive approach to learning challenges. Conversely, an external locus of control may lead to learned helplessness, where individuals feel powerless in influencing their outcomes, thereby diminishing their intellectual engagement and performance. Arsini, Ahman, and Rusmana (2023), investigated the role of locus of control and resilience in student academic achievement. The results showed that the internal locus students had superior academic resilience and achievement than the external locus students. Students who focus on internal aspects (internal locus of control) are more resilient and better at overcoming difficulties.

School adaptation is another variable that could predict intellectual functioning. It involves how well a child adjusts to the academic and social demands of the school environment. This factor is crucial in intellectual development as it affects both the learning process and overall cognitive growth. Effective school adaptation includes a positive attitude towards school, good relationships with peers and teachers, and the ability to meet academic challenges. Studies in Nigeria revealed that there is

correlation between school adaptation and academic achievement, self-concept, intellectual adjustment, and academic performance (Anjorin-Ojewole, 2023; Balami, Ursula, & Dimshaka, 2023). Maha and Ezra (2025) investigated intellectual adjustment as correlates of academic performance among public senior school students in North Central Nigeria. Findings revealed a significant positive relationship between intellectual adjustment and academic achievement. This suggests that the students who adapt well intellectually to the demands of their school environment tend to perform better academically. Zhang, Cui, Zhou, Cai, and Liu (2018) examined the role of school adaptation and self-concept in influencing Chinese high school students' growth in math achievement. It was discovered that school adaptation significantly and positively influences student math achievement growth via mediating effects of student academic self-concept, as opposed to showing a direct impact on students. According to the researchers, children who adapt well to school environments tend to have higher intellectual functioning. The study highlighted that positive school experiences, such as supportive teacher-student relationships and active participation in school activities, enhance cognitive development by providing stimulating and enriching experiences. Eoh, Lee, and Park (2022), assessed adaptation to school, academic achievement, problematic smartphone usage, and general happiness in a panel data sample of 695 Korean 10-year-old children and their teachers and mothers, and a moderated mediation model of these variables was tested. Results revealed that school adaptation affected general happiness of children through academic performance, and problematic smartphone usage demonstrated significant moderating effects on the relationship between school adaptation and academic achievement.

Statement of the Problem

Students having borderline intelligence constitute a risk group in terms of long term learning difficulties, repeating a school year, being expelled from school, having conflicts with the law, suffering from dependence, limited opportunities in adulthood, etc. In midlife, the individuals with mild intellectual deficits tends to have less prestigious occupations and poorer psychological functioning. Thereby, causing economic hardship for their immediate family and being dependent on extended families for survival. It is not clear if parenting styles (authoritative, authoritarian, permissive, & neglectful), locus of control and school adaptation jointly determine and predict borderline intellectual functioning of the child.

Research Hypotheses

Two research hypotheses were formulated to guide the study;

1. Parenting styles (authoritative, authoritarian, permissive, and neglectful), locus of control, and school adaptation will not jointly predict borderline intellectual functioning of the upper basic students in Ondo State, Nigeria.
2. There is no significant relative contribution of parenting styles (authoritative, authoritarian, permissive, and neglectful), locus of control, and school adaptation to borderline intellectual functioning of the upper basic students in Ondo State, Nigeria.

Methodology

The study adopted survey research design. This research design was employed because it enabled the researcher to explore the predictions of the independent variables of interest on the dependent variable. The population for this study comprised all the BIF students in the Upper Basic Education (U.B.E 7) of Ondo State public secondary schools. The sample consisted 120 BIF students drawn from six secondary schools in the state through multistage sampling procedure. Ondo State has three senatorial districts, each consists six local governments. First stage was the random selection of one local

government area from each Senatorial districts of the state. Random selection of two public secondary schools from each of the local government areas selected was done at the second stage making a total of six schools. Purposive selection of universal basic education (UBE) 7 class in each school was the third stage, this is because they are the target group that need prompt intervention before they advance into higher classes. The fourth stage was the screening out of all BIF students in each arm, through the use of Raven's Standard Progressive Matrices Test (a standard intelligence test). The BIF students were those whose scores lied between 10th-25th percentiles on the Raven's Test, this created a pool of 252 BIF students from the six schools. The fifth stage was stratification of the BIF students in each school on age and gender bases and lastly, proportional random selection of participants from each stratum which gave a total of 20 BIF students in each school.

A standardized test and a questionnaire were used for this study. The first was an adopted form of a standardized psychological test called Raven's Standard Progressive Matrices (RSPM) by Raven (2000). It is a psychological test designed for Ages 8 and above to measure intelligence, it is a paper-pencil test made of 60 multiple choice questions which get increasingly difficult, demanding greater cognitive capacity to solve. Scoring of the RSPM was binary, with a score of 1 being attributed to each correct item, and 0 to incorrect item. The second instrument was a questionnaire termed the "Questionnaire on Parenting Styles, Locus of Control and School Adaptation". It was in four parts, Part 1 was on the students' personal data. Part 2 was on parenting styles adapted from Parenting Style Questionnaire developed by Robinson, Mandleco, Olsen, and Hart (1995). The items were scored on a four-point scale of extremely true (4), moderately true (3), slightly true (2), not true at all (1). Participant's scores on the items were added to determine the type of parenting style being experienced from either or both of the parents. Part 3 was on locus of control adapted from the Locus of Control Scale (self-assessment) developed by Nowicki and Strickland as cited in Fakolade (2014). It measured internal and external locus of control. The items were scored on a two-point scale of Yes (2) and No (1). Part 4 of the questionnaire was on school adaptation which was adapted from School Adjustment – Child Grade 6/Year 7 (Fast Track Projects Technical Report) by Maumary-Gremaud, (2004). The items were scored on a four-point scale, with response options of always true (4), usually true (3), sometimes true (2) and never true (1). A concurrent validity was ascertained on the RSPM with a coefficient of 0.79 while convergent validity was used for the questionnaire and coefficient of 0.68 was obtained. Test-retest reliability technique was adopted for the two instruments, coefficients of 0.74 and 0.82 were derived for RSPM and the questionnaire respectively after using Pearson Product Moment Correlation to analyse the results on the two occasions. The researcher administered the instruments on the respondents personally in the sampled secondary schools. The research hypotheses were subjected to multiple regression. All the hypotheses were tested at 0.05 level of significance.

Results

Hypothesis One: Parenting styles (authoritative, authoritarian, permissive, & neglectful), locus of control, and school adaptation will not jointly predict borderline intellectual functioning of the upper basic students in Ondo State, Nigeria.

Table 1

A Multiple Regression Analysis of the Influence of Parenting Styles, Locus of Control, and School Adaptation on Borderline Intellectual Functioning

Model Summary		ANOVA					
R		Model	Sum of Squares	df	Mean Square	F	Sig.
R Square	.238 ^a	Regression	392.690	3	65.448		
Adjusted R Square	.006	Residual	6562.033	116	58.071	1.127	.351 ^a
Standard Error	7.620	Total	6954.722	119			

p > 0.05

Table 1 shows the composite relationship of parenting styles (authoritative, authoritarian, permissive, & neglectful), locus of control and school adaptation with borderline intellectual functioning is low and statistically not significant ($R = 0.238$, $p = 0.351 > 0.05$). It also shows that the parenting styles, locus of control and school adaptation jointly explained about 5.6% ($R^2 = 0.056$) of the observed variance in borderline intellectual functioning while the remaining 94.4% unexplained variance is largely due to other variables outside the regression model. It further reveals that the null hypothesis is not rejected ($F_{3,116} = 1.127$, $p = 0.351 > 0.05$). This implies that parenting styles, locus of control and school adaptation do not significantly predict borderline intellectual functioning of the upper basic students.

Hypothesis Two: There is no significant relative contribution of parenting styles (authoritative, authoritarian, permissive, & neglectful), locus of control, and school adaptation to borderline intellectual functioning of the upper basic students in Ondo State, Nigeria.

Table 2

Multiple Regression Analysis of the Contribution of Parenting Styles, Locus of Control, and School Adaptation in Predicting Borderline Intellectual Functioning

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		Std. Error	Beta(β)		
1 (Constant)	39.400	9.873		3.991	.000
Authoritative	.009	.061	.018	.147	.884
Authoritarian	.027	.061	.057	.447	.656
Permissive	-.031	.058	-.072	-.540	.590
Neglectful	.088	.066	.189	1.333	.185
Locus of control	-.158	.095	-.156	-1.669	.098
School Adaptation	-.081	.072	-.119	-1.132	.260

Table 2 shows that the best contributor to borderline intellectual functioning is neglectful parenting style with 0.189 beta weight. This is followed by authoritarian parenting style with 0.057 and followed by authoritative parenting style with 0.018 beta weight, permissive parenting style with beta weight of 0.072, school adaptation is -0.119 while the least contributor is locus of control with -0.156 beta weight.

However, other factors apart from these independent variables contribute more with 39.400 to borderline intellectual functioning. This means that there is no significant contribution of authoritative ($t = 0.147$, $p = 0.884 > 0.05$), authoritarian ($t = 0.447$, $p = 0.656 > 0.05$), permissive ($t = -0.540$, $p = 0.590 > 0.05$) and neglectful ($t = 1.333$, $p = 0.185 > 0.05$) parenting styles, locus of control ($t = 1.669$, $p = 0.098 > 0.05$) and school adaptation ($t = -1.132$, $p = 0.260 > 0.05$) to borderline intellectual functioning of upper basic students. The null hypothesis is not rejected. This means that there is no significant relative contribution of parenting styles (authoritative, authoritarian, permissive, & neglectful), locus of control, and school adaptation to borderline intellectual functioning of the upper basic students in Ondo State.

Discussion of Findings

The finding shows that the best contributor to borderline intellectual functioning was neglectful parenting styles. The finding negates Shibli and Islam (2020) who examined children with intellectual disability behaviours and parenting styles. A relationship was observed in frequencies related with behavioural outcome with reference to parenting styles. The contributions of each of the parenting styles to BIF are low though, they all make the BIF child to continue to fall below average in intellectual functioning as revealed by this study. This outcome could be as a result of the parents' belief on the children, the below average children are already written off, their parents are not expecting much return from them in the future. Parents try to get their own returns now in kind by engaging them in house chores, hawking, attending to customers in other to boost the family income, at the detriment of their academic activities like reading and doing school assignments.

The finding reveals that parenting styles, locus of control and school adaptation did not significantly predict borderline intellectual functioning of the upper basic students. It however shows that the best predictor was parenting styles. The family is a powerful influence on the child and its importance as a primary agent of socialization could in no doubt enhance or hinder the academic achievement of the child depending on the social climate in the family. This finding agrees with Garcia and Serra (2019) whose result indicated that the relationship between parenting styles and children's socialization outcomes does not vary as a function of school performance. Both authoritarian and neglectful parenting (lack of warmth) were related to the worst outcomes. It was pointed out that poor school performance is consistently associated with the worst short- and long-term socialization outcomes, not only during adolescence but also in adulthood. Plausible reason for the variation in the findings of previous study and the current study could be the type of sample used. Previous studies used normal students while this study used the BIF students. There are other factors that have not been considered in this study that could predict BIF, probably natural factors like natural endowment, innate ability and hereditary rather than environmental factors.

Conclusion and Recommendation

Based on the findings, it was concluded that though the variables under investigation are not significant, however the best contributor to borderline intellectual functioning is neglectful parenting style while the least contributor was locus of control. Also, that the independent variables neither contribute jointly to nor predict borderline intellectual functioning. This means that no matter how small the contribution, it could gradually build to become significant and could impact the child and the society. It was therefore recommended that, psychologists and school counsellors should guide the parents on the use of appropriate parenting style in the nurturing and rearing of the BIF children, particularly in solving their academic problems.

References

- American Psychology Association (2018). Dictionary of Psychology <https://dictionary.apa.org/intelligence>
- Anjorin-Ojewole, M. (2023). New intake adaptation to school routines and academic performance in universities in South. *International Journal of Research and Publications Review*, 5(7).
- Arsini, Y., Ahman, A., & Rusmana, N. (2023). The role of locus of control and resilience in student academic achievement. *International Journal of Learning Teaching and Educational Research*, 22(3), 396-412. <https://doi.org/10.26803/ijlter.22.3.24>
- Ashley, S. (2023). The 4 types of parenting styles and their effects on children. <https://www.choosingtherapy.com/parenting-styles/>
- Balami, D. I., Ursula, I. O., & Dimshaka, B. E. (2023). Chapter 22 Curriculum adaptation for children with learning disabilities in an inclusive settings. pp 261-268. Available from: <https://www.researchgate.net/publication/390201269> CHAPTER 22 CURRICULUM ADAPTATION FOR CHILDREN WITH LEARNING DISABILITIES IN AN INCLUSIVE SETTINGS [accessed Jun 01 2025].
- Baumrind, D. (1968). Authoritarian vs authoritative parental control. *Adolescence*, 3, 255-272. <https://psycnet.apa.org/record/1969-06772-001>
- Eoh, Y., Lee, E., & Park, S. (2022). The relationship between children's school adaptation, academic achievement, happiness, and problematic smartphone usage: A multiple informant moderated mediating model. *Applied Research Quality Life*, 17, 3579–3593. <https://doi.org/10.1007/s11482-022-10080-w>
- Fakolade, O. A. (2014). Locus of control and emotional intelligence as predictors of academic achievement of high achieving learners in Ibadan, Oyo State. *African Symposium*, 14(1-2), 51-60.
- Garcia, O. F. & Serra, E. (2019). Raising children with poor school performance: Parenting styles and short-and long-term consequences for adolescent and adult development. *International Journal of Environmental Research and Public Health*, 16(7), 1-24. DOI: 10.3390/ijerph16071089
- Gawas, A. (2022). The effect of locus of control, cultural intelligence and academic self-efficacy on the academic adjustment among Yemeni students in Turkey. *American International Journal of Social Science Research*, 11(1), 1-16. DOI: [10.46281/aijssr.v11i1.1443](https://doi.org/10.46281/aijssr.v11i1.1443)
- Iwasaki, S., Moriguchi, Y., & Sekiyama, K. (2023). Parental responsiveness and children's trait epistemic curiosity. *Frontiers in Psychology*, 13, 1-9. <https://doi.org/10.3389/fpsyg.2022.1075489>
- Kendra, C. (2024). Why parenting styles matter when raising children. <https://www.verywellmind.com/parenting-styles-2795072>
- Kong, C., & Yasmin, F. (2022). Impact of parenting style on early childhood learning: mediating role of parental self-efficacy. *Frontiers in Psychology*, 13, 1-11. <https://doi.org/10.3389/fpsyg.2022.928629>
- Maha, M. C., & Ezra, G. Y. (2025). Intellectual adjustment as correlates of academic performance among public senior school students in North Central Nigeria. *Science Education*, 11(1), 212-218.
- Maumary-Gremaud, A. (2004). School Adjustment – Child Grade 6/Year 7 (Fast Track Projects Technical Report) [On-line]. 1-6. Available <http://www.fasttrackproject.org>
- Ndakara, E. J. & Urien, P. (2025). The effects of parenting styles on the educational development of secondary school students in Ethiopia East L.G.A of Delta State. *British Journal of Education*, 13(4), 1-9. <https://www.eajournals.org/>
- Nwune, E. C., & Okwuduba, E. (2021). Parenting styles as a correlate of academic achievement of primary school pupils in Akwa South. *Journal Plus Education*, 28(1), 30-38.

- Obadike, S. E., & Unachukwu, G. C. (2023). Parenting styles as correlate of academic achievement of senior secondary school students in Anambra State, Nigeria. *UNIZIK Journal of STM Education*, 6(1), 169-178.
- Obiunu J. J. (2018). Influence of parenting styles on the academic performance of secondary school students in Ethiopie East Local Government Area Delta State. *International Journal of Educational Technology and Learning*, 2(2), 54-58. DOI: 10.20448/2003.22.54.58
- Ogar, R. O., Odey, S. A., Williams, N. A., & Akpana, F. U. (2024). Locus of control as correlates of mathematics achievement among senior secondary school high ability students in Calabar metropolis of Cross River State, Nigeria. *Global Journal of Educational Research*, 23, 495-503. DOI: <https://dx.doi.org/10.4314/gjedr.v23i4.12>
- Pamela, L. (2024). 4 Types of Parenting Styles. *Parenting for Brain*. <https://www.parentingforbrain.com/4-baumrind-parenting-styles/>
- Raven, J., Raven, J. C., & Court, J. H. (2000). *Standard progressive matrices*. USA: Pearson.
- Retnowati, D. A. & Sukmawaty, N. I. P. (2024). The effect of authoritative parenting style on individual development: A literature review. *World Journal of Advanced Research and Reviews*, 21(01), 205–209. DOI: <https://doi.org/10.30574/wjarr.2024.21.1.2662>
- Robinson, C., Mandlco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports*, 77, 819-830.
- Rotter, J. B. (1966). Generalized Expectancies for Internal Versus External Control of Reinforcement. *Psychological Monographs*, 80(1), 1-28.
- Shibli, N. & Islam, S. (2020). Children with Intellectual Disability Behaviours and Parenting Styles. *Advance*. <https://advance.sagepub.com/doi/full/10.31124/advance.12357365.v1>
- Sternberg, R. J. (2024). *Human intelligence*. Encyclopaedia Britannica. <https://www.britannica.com/science/human-intelligence-psychology>
- Wafaa, A. A. H., Enas, M. A., Sayeda, M., Nadia, B. E., & Omnia, M. A. E. (2024). Problem solving skills and its relation to parental authority among technical secondary schools students. *Menoufia Nursing Journal*, 9(1), 277-291. DOI: [10.21608/menj.2024.354765](https://doi.org/10.21608/menj.2024.354765)
- Yang, J. & Zhao, X. (2020). Parenting styles and children’s academic performance: Evidence from middle schools in China. *Children and Youth Services Review*, 113, <https://doi.org/10.1016/j.childyouth.2020.105017>
- Zhang, D., Cui, Y., Zhou, Y., Cai, M., & Liu, H. (2018). The role of school adaptation and self-concept in influencing Chinese high school students’ growth in math achievement. *Frontiers in Psychology* 9, 1-11. doi: [10.3389/fpsyg.2018.02356](https://doi.org/10.3389/fpsyg.2018.02356)