AFRICAN JOURNAL OF

EDUCATIONAL MANAGEMENT

ISSN 0795 – 0063 Volume 23, No. 1 June, 2022

A JOURNAL OF THE DEPARTMENT OF EDUCATIONAL MANAGEMENT, UNIVERSITY OF IBADAN

PSYCHOSOCIAL AND PERSONAL FACTORS AS CORRELATES OF IDENTIFICATION OF GIFTED AND TALENTED STUDENTS IN OWERRI MUNICIPAL, IMO STATE, NIGERIA

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Abstract

The study investigated on psychosocial and personal factors as correlates of identification of gifted and talented students in Owerri Municipal, Imo State. The study adopted a descriptive survey research design of correlational type. The population of the study was 2,893 with a sample size 155 teachers in secondary schools in Owerri, Imo State. selected through simple random sampling techniques representing 5% of the total population. The data were collected using Teacher-student relationship Rating Scale, Teachers' self-efficacy Rating Scale and Teachers' knowledge Rating Scale. The instruments were subjected to a reliability test using Spearman Brown Rank Order which yielded a correlation coefficient of r=0.76, 0.71 and 0.83 respectively. Data collected were analyzed using the inferential statistics of Person Product Moment Correlation (PPMC) and Multiple Regression and at 0.05 alpha level of significance. The findings revealed a significant relationship between teacher-student relationship (r=.510, p(.000)<.05), teachers' self-efficacy (r=.509, p(.000)<.05), and teachers' knowledge (r=.217, p(.007)<.05) respectively and identification of gifted and talented students. The relationship of the three independent variables (teachers' self-efficacy, teacher-student relationship, teachers' knowledge) to the prediction of the dependent variable that is, identification of gifted and talented students showed a coefficient of multiple correlation R=.554 and a multiple R^2 of .307. Finally, the result

revealed a relative contribution of the three independent variables to the dependent variable, expressed as beta weights, viz: Teachers' self-efficacy (β=.307, p<.05), teacher-student relationship (β=.288, p<.05), and teachers' knowledge (β=.019, p>.05). Based on these findings, it is recommended that teacher-student relationship must always be cordial in every school since it has been established that it enhances the identification of gifted and talented students in schools.

Keywords: Psycho-social factor, Personal factor, Identification, Gifted and talented student

Introduction

Gifted and talented education in Nigeria is an evolving field that has not enjoyed maximum attention from educational stakeholders. The concept of giftedness has a close similarity with high academic achievement and its unstable traits exhibited by potential candidates of the extremely positive form of exceptionality has been misconstrued with variants of descriptions such as high ability, high achievement and positive exceptionality. However, each of these descriptions acknowledges the construct of 'intelligence' but not without different views. Pfeiffer (2012) stated that any goal-directed mental activities with potential to solving problem through effective abstract reasoning and critical thinking ability possibly reveal a level of higher intelligence or a superior development of various brain functions needed for adaptation, shaping and selection of environmental context. Aside the superior development of various brain functions, gifted learners are expected to display exceptionalities in academics, arts leadership and creativity skills and personality attributes such as flexibility, intrinsic motivation and independence. While some learners exhibit the aforementioned traits, many of such learners are unidentified for enrichment programmes but have suffered being labeled by their peers, teachers or parents. In this study, psycho-social and personal factors represent teachers' self-efficacy, teachers' knowledge and teacher-student relationship.

Renault (2002) submitted that there are many learners who are candidates of a differential instructions within the regular classroom who are yet unidentified for a gifted and talented programmes. In regular classroom, there is no concrete activity to challenge their

learning uniqueness. Consequently, they may be vehemently underserved without specialised learning standards and personnel. Some of them are seen as threats to their regular class teacher or peers without high ability. In lieu of this, proper identification of gifted and talented learners remains an important factor for adequate placement and nurturing. Gifted is not as a result of only one factor but rather a combination of many. Therefore, it cannot be measured and identified by using only one or two factor tests but with a combination of different types of techniques which is a pointer for identification and assessment purposes (Sharma, 2014).

Identifying gifted and talented learners have over the years been through intelligence tests, achievement tests, aptitude tests, grades, parent nomination, self-nomination, peer nomination or teacher nominations/observation (Heward, 2006). Conversely, Sharma (2014) noted that general education teachers often overlook potential gifted and talented learners when asked to select them. They need keen observations of their learners that will assist them to acquire apt knowledge about giftedness exhibited in the classroom and outside classroom setting. Teachers' knowledge about giftedness in learners is sine qua non in identification process. Hence, Perez and Freitas (2011) affirmed that teachers play a significant role in the recognition and evaluation processes of the gifted learners. The recognition of giftedness among learners in general education classroom however is complex due to inability of classroom teachers to possess needed knowledge on early identification of potentially talented students(Porter, 2005). Forno, Bahia and Veiga (2015) remarked that teachers are able to observe specific signs of higher potential and, therefore, be in particular conditions to conduct a preliminary identification of talent, to be complemented with further observation and psychological assessment.

Another construct that can aid identification of gifted and talented students in regular classroom setting is teacher-students relationship. Warm teachers create friendly learning environment which allows all the students to express their learning uniqueness. Siegle and Powell (2014) evinced that teachers' relations with students can also provide sound information to confirm this first intuition, and to provide educational services that are more appropriate for the students' particular case. Interactions between teachers and students

are considered to be the primary mechanism through which learners express their precocities in school activities (Hamre and Pianta, 2015). Basically, the classroom environment is a place to connect, relate and interact both for social and academic discourse. Hence quality relationship between the teacher and learners does not only facilitate the process of teaching and learning but remain a powerful element for students' development and school environment. The closeness of teachers to their students makes identification of gifted and talented an easy task because it grants them the ability to understand what their students are capable of doing and what they are not. However, many times, teachers misread talent or higher ability in their students due to their focus on learning difficulties or behavior problems (McClain and Pfeiffer, 2012). In addition, teachers' stereotyped conceptions about giftedness, based on expectations for idyllic behaviour characteristics and attitudes, as well as for high levels of school achievement, may explain their reduced objectivity in screening (Speirs, Adms, Pierce, Cassey and Dixon, 2007; Miranda, 2008). Negative attitude of some regular teachers will not allow high ability students to exhibit their precocities which can nominate them for gifted and talented educational programme in classroom environment. The rationale behind this includes bias, unfamiliarity with the unique characteristics of giftedness and failure to consider the effect of how disadvantaged life circumstances can immensely affect students' behaviour and attitudes (Frasier, Garcia and Passow, 2015).

Teachers' self-efficacy may also play a sine qua non role in identification of gifted and talented students in general education classrooms. Teacher's self-efficacy is defined as one's belief of his or her capabilities to bring about desired outcomes of students' engagement', achievement and learning, even among those students who may be difficult or unmotivated (Bandura, 1997). High self-efficacy of teachers exhibits positive behaviour which in turn, enhances students' achievement. Hoy and Spero (2005) pointed out that highly efficacious teachers are more open to new ideas, more committed and invest greater effort in teaching, as influences students' learning well as provide more attention to students. Teachers who are confident about their capacity to teach and who believe that efficacious teaching show more persistence, focus more on the academic aspects of their activity, spend more class time in academic activities, use more complex

instructional methods, provide more help and orientation for the students, and praise their academic achievements more than teachers with low expectations about their capacity to influence their students' learning (Gibson and Dembo, 1984). Hence, regular teachers who have vehement belief in their teaching methodologies and mastery of content can easily recognize students' strengths which in turns help them to identify gifted and talented students in their classroom (Caprara, Barbaranelli, Steca, and Malone, 2006; Schwarzer and Hallum, 2008). Cherry (2020) finds that teachers with a high sense of teacher efficacy can develop an interest in academic activities, develop a higher sense of commitment to their interest and school activities, do not get out of control when they face difficulties and setbacks, welcome challenging activities as to be successful. Whereas teachers with a low sense of teacher efficacy escape challenging activities and make excuses, they feel that challenging tasks are outside of their capabilities, get focused on negative impacts and take it personal failings, eventually, they lose belief in personal capabilities.

Statement of the Problem

General education classrooms in Nigeria comprises of students with different learning uniqueness. There are students whose academic performances are always above average. They often exhibit higher ability in school activities compare with their peers in class. Some learning contents in regular classroom undermine the expression of their precocious ability. Hence, there is a need to identify them so that their learning uniqueness can be met. To identify them as gifted and talented students in regular classroom, previous researchers have investigated on how some constructs such as teacher's attitude, school climate, locus of control, teacher's motivation, peer influence and parental socio- economic status can be used. However, it seems there is a dearth of studies on how teachers' knowledge, teachers-students relationship and teachers' self-efficacy can be used. In addition, no study known to the researcher has worked on the relationship between teacher's self-efficacy, teachers/students relationship, and teacher's knowledge on the identification of gifted and talented students. Thus, there is a gap. To fill this gap, teachers' knowledge, teachers-students relationship and teachers' self-efficacy are

considered in this study as indices affecting identification of gifted and talented students in general education classroom.

Purpose of the Study

The main purpose of this study was to investigate the psychosocial and personal factors as correlates of identification of gifted and talented students in Owerri Municipal, Imo State. Specifically the study sought to determine:

- joint significant relationship among the independent variables (teacher's self-efficacy, teacher/student relationship, teacher's knowledge) and identification of gifted and talented students.
- the significant relative contribution of the independent variables (teacher's self-efficacy, teacher/student relationship and teacher's knowledge) to the identification of gifted and talented students.

Research Questions

The following research questions were raised to guide the conduct of this study.

1. What is the relationship between teachers' self-efficacy, teacher-student relationship, teachers' knowledge, and identification of gifted and talented students?
2. Is there any joint significant contribution of teachers' self-efficacy, teacher-student relationship and teachers' knowledge, to identification of gifted and talented students?
3. Is there any significant relative contribution of teachers' self-efficacy, teacher-student relationship and teachers' knowledge to identification of gifted and talented students?

Methodology

The descriptive survey research design of correlational type was adopted for the study. The population of the study was 2,893 with a sample size 155 teachers in secondary schools in Owerri, Nigeria selected through simple sampling techniques representing 5% of the total population. Data for the study were collected using Teacher-student relationship Rating Scale, Teachers' self-efficacy Rating Scale and Teachers' knowledge Rating Scale. Each of these instruments was reviewed and provided feedback by the experts in the field of Gifted

and Talented Education. The instruments were finalised in the light of feedback received from experts. The instruments consisted of 36 items of which thirteen items based on teacher-student relationship, another thirteen items on teachers' self-efficacy while the last ten items were on teachers' knowledge. The instruments were subjected to a reliability test using Spearman Brown Rank Order which yielded a correlation coefficient of r= 0.76, 0.71 and 0.83 respectively. The completed questionnaire was collected, sorted, coded and analysed using the inferential statistics of Person Product Moment Correlation (PPMC) and Multiple Regression and at 0.05 alpha level of significance.

Results

Research question one: What is the relationship between teachers' sense of self-efficacy, teacher-student relationship, teachers' knowledge, and identification of gifted and talented students?

Table 1: Pearson Product Moment Correlation (PPMC) showing the relationship between teachers' sense of self-efficacy, teacher-student relationship, teachers' knowledge, and identification of gifted and talented students

	Identification of gifted & talented students	Teacher-Student relationship	Teachers' Self-efficacy	Teacher's knowledge
Identification of gifted & talented students	1			
Teacher-Student relationship	.510* (.000)	1		
Teachers' Self-efficacy	.509* (.000)	.693* (.000)	1	
Teacher's knowledge	.217* (.007)	.228* (.004)	.447* (.000)	1
Mean ( )	61.9677	79.2710	42.5806	36.8581
S.D	5.1414	13.7455	7.2011	8.1571

* Sig. at 0,05 level

Table 1 shows that there is significant relationship between identification of gifted and talented students and teacher-student relationship (r= .510, p (.000)<.05), teachers' self-efficacy (r= .509,

p(.000)<.05), and teachers' knowledge (r= .217, p(.007)<.05) respectively.

Research question two: Is there any significant joint contribution of teachers' self-efficacy, teacher-student relationship and teachers' knowledge to identification of gifted and talented students?

Table 2: Summary of Regression analysis showing joint contribution of teachers' self-efficacy, teacher-student relationship, and teachers' knowledge to identification of gifted and talented students

R	R Square			Adjusted R Square	Std. Error of the Estimate	
.554	.307			.293	4.3222	
ANOVA						
Model	Sum of Squares	DF	Mean Square	F	Sig.	Remark
Regression	1249.885	3	416.628	22.301	.000	Sig.
Residual	2820.954	151	18.682			
Total	4070.839	154				

Table 2 shows the joint contribution of the three independent variables (teachers' self-efficacy, teacher-student relationship, teachers' knowledge) to the prediction of the dependent variable that is identification of gifted and talented students. The table also shows a coefficient of multiple correlation R = .554 and a multiple R^2 of .307. This means that 30.7% of the variance was accounted for by three predictor variables when taken together. The significance of the composite contribution was tested at a = 0.05. The table also shows that the analysis of variance for the regression yielded F-ratio of 22.301 (significant at 0.05 level). This implies that the joint contribution of the independent variables to the dependent variable was significant and that other variables not included in this model may have accounted for the remaining variance.

Research question three: Is there any significant relative contribution of teachers' self-efficacy, teacher-student relationship and teachers' knowledge to identification of gifted and talented students?

Table 3: Summary of Regression Analysis showing relative contribution of teachers' self-efficacy, teacher-student relationship and teachers' knowledge on identification of gifted and talented students

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error	Beta Contribution		
(Constant)	43.686	2.391		18.270	.000
Teachers' self-efficacy	.115	.035	.307	3.236	.001
Teacher-student relationship	.205	.074	.288	2.788	.006
Teachers' knowledge	.012	.048	.019	.251	.803

Table 3 reveals the relative contribution of the three independent variables to the dependent variable, expressed as beta weights, viz: Teachers' self-efficacy (β=.307, p<.05), teacher-student relationship (β = .288, p<.05), and teachers' knowledge (β = .019, p>.05) . Hence, it could be deduced that Teachers' self-efficacy, Teacher-student relationship and teacher's knowledge were significant, that is, they could independently and significantly predict identification of gifted and talented students in the study.

Discussion of Findings

Based on the findings of this study, teacher-student relationship can predict the identification of the gifted students in general education setting. Cristina and Lourdes (2012) studied the teacher-student relationship among 71 teachers from the University of Deusto (Spain). The researcher found that those teachers who feel more able to interact with students and create a learning environment of trust and mutual respect, achieve a greater perception of the learning acquired (= 2.93) by their students than those with hostile relationship (= 2.71). Proper identification of gifted and talented students in general education may only be ascertained when teacher-students relationship is strong.

Tanya (2012) studied teacher self-efficacy: a link to student achievement in English language and Mathematics in Belizean primary schools. The researcher found that teachers with high self-efficacy beliefs have classrooms that are conducive to learning as they engage

in reflection and find ways to get to even the most brilliant students. This corroborates the finding of this study that teachers' self-efficacy is a predictive factor in the identification of gifted and talented learners in general education classroom.

The findings of this study is supported by the earlier findings of Farkas, Duffett and Loveless (2008) who found that teachers' knowledge can influence identification of gifted and talented students in general education classroom. In their study, they found that schools make efforts to improve the academic performance of the students with learning difficulties and identify gifted and talented students. Their resources rarely converge in the necessities of the students showing high achievement. Apt training programmes for general education teachers will afford them necessary knowledge to identify gifted and talented students in their classroom. Shayshon, Gal, Tesler and Ko (2014) found that regular teachers with little-knowledge about gifted and talented educational programmes do minor modifications to their teaching techniques which can help in the identification of gifted students and they carry out little adaptations to the curriculum in response to the needs and demands of their gifted students in the classroom. Their findings are in line with findings of this study that teachers' knowledge is a predictive factor in the identification of gifted students in general education classroom. Identification of gifted and talented students in general education classroom by teachers requires both a deep understanding and knowledge of students and the effective and inclusive means to identify a gift and talent within the student (Reid, 2011).

Conclusion

Based on the findings of this study, the following conclusions were made.

1. Teachers' self-efficacy is a predictor of identification of gifted and talented students in general education classroom.
2. Teacher-student relationship is a predictor of identification of gifted and talented students in general education classroom.
3. Teachers' knowledge is a predictor of identification of gifted and talented students in general education classroom.

Recommendations

Based on the findings of the study, the researchers recommend that:

- Classroom teachers should be confident about their capacity to identify gifted and talented students in their class.
- Classroom teachers should be equipped with basic knowledge of the characteristics of gifted learners which can aid identification process.
- Classroom teachers should broaden their perspectives of other cultures and to be aware of how their own personal values can affect their evaluation of the economically disadvantaged gifted child.
- Classroom teachers should acquire knowledge that will help them to recognize specific criteria that match the area of talent that a program is designed to service. These criteria should be specific and include concomitant characteristics. Such training will go a long way toward improving referrals for gifted and talented programmes.

References

Bandura, A. (1997). *Self-efficacy: The exercise of control.* Macmillan.

Baudson, T. G., & Preckel, F. (2016). Teachers' conceptions of gifted and average-ability students on achievement-relevant dimensions. *Gifted Child Quarterly,* 60(3),212-225.

Caprara, G. V., Barbaraneili, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of school psychology, 44(6),* 473-490.

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy » beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44, 473- 490.

Carrington, N. G., & Bailey, S. B. (2000). How do preservice teachers view gifted students? Evidence from a NSW study. *Australasian Journal of Gifted Education,* 9(1),18.

Cherry, K. (2020). Self-efficacy and why believing in yourself matters. Retrieved on 26/10/2022 from Self Efficacy and Why Believing in Yourself Matters (verywellmind.com).

Cristina, A. & Lourdes, V. (2012). Teacher' self-efficacy and student learning. *The European Journal of Social & Behavioural Sciences,* 367-386.

Dal Forno, L., Bahia, S. & Veiga, F. (2015). Gifted amongst preschool students: An analysis on how teachers recognize giftedness. *International Journal of Technology and inclusive Education (IJT1E),* 5, 707-715.

Farkas, S., Duffett, A. & Loveless, T. (2008). *High-achieving students in the era of No Child Left Behind.* Washington DC, USA: Thomas B. Fordham Institute.

Frasier, M. M., Passow, A. H., & Garcia, J. H. (2015). *A review of assessment issues in gifted education and their implications for identifying gifted minority students* (Vol. 95204). DIANE Publishing.

Gibson, S. & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76,* 569-582.

Hamre, B. K., & Pianta, R, C. (2005). Can instructional and emotional support in the first grade classroom make a difference for students at risk of school failure? *Child Development,* 76, 949-967.

Heward, W. L. (2006). Exceptional students: Upper Saddle River, NJ: Merrill.

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and teacher education,* 27(4), 343-356.

Khine, M. S., & Fisher, D. (Eds.). (2003). *Technology-rich learning environments: A future perspective.* World Scientific Publishing Company.

Lassig, C. (2009). Teachers' attitudes towards the gifted: The importance of professional development and school culture. *Australasian Journal of Gifted Education, 18(2),* 32.

Matheis. S., Kronborg, L., Schmitt, M., & Preckel, F. (2017). Threat or challenge? Teacher beliefs about gifted students and their relationship to teacher motivation. *Gifted andTalented International,* 32(2), 134-160.

Matthews, D. J., & Dai, D. Y. (2014). Gifted education: changing conceptions, emphases and practice. *International Studies in Sociology of Education, 24(4),* 335-353.

McClain, M. C., & Pfeiffer, S. (2012). Identification of gifted students in the United States - A look at state definitions, policies, and practices. *Journal of Applied School Psychology,* 28(1), 59-88.

McGrath, K. F., & Van Bergen, P. (2015), Who, when, why and to what end? Students at risk of negative student-teacher relationships and their outcomes. *Educational Research Review, 14,* 1-17.

Perez, S. G. P. B., & Freitas, S. N. (2011). Pedagogical orientations with students with High Skills/Gifted in Basic Education: The Brazilian scenario. *Educate in Review*, (41), 109-124.

Perez, S. G. P. B. & Freitas, S.N. (2011). Encaminhamentos Pedagogicos com Alunos com Altas Habilidades/ Super dota9aonaEducapaoBasica: CenarioBrasileiro. *Educarem*, 109-124.

Pfeiffer, S. I. (2012). Current perspectives on the identification and assessment of gifted students. *Journal of Psycho Educational Assessment, 30(1),* 3-9.

Porter, L. (2005). *Gifted Young Students: a guide of teachers and parents.* 2ª. Buckingham, Open University Press.

Quah, M. L., & Teo, C, T. (1994). Personality characteristics and creative thinking ability of graduate teachers who are interested to teach gifted and talented pupils. In *eight annual conference of the Educational Research Association, Singapore.*

Reid, M. (2011). Teaching implications of gifted and talented learners within the mainstream classroom. *Journal of Student Engagement: Education Matters,* 7(1), 29-32.

Renault, J. (2002). Learning style preference: A practical approach for classroom teachers. *Theory into Practice,* 23(10): 45-50

Roorda, D. L., Koomen, H. M., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of educational research,* 87(4), 493-529.

Schwarzer, R., & Halfum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied Psychology*, 57, 152-171.

Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied psychology, 57,* 152-171.

Sharma, Y. (2014). The effects of strategy and mathematics anxiety on mathematical creativity of school students. *International Electronic Journal of Mathematics Education, 9(1),* 25-37.

Shaw, M. (2009). Working with Gifted Students. *National Childcare Accreditation Council,* 24-26.

Shayshon, B., Gal, H., Tesler, B., & Ko, E. (2014). Teaching mathematically talented students: a cross-cultural study about their teachers' views. *Educational- Studies in Mathematics, 87,* 409-438.

Siegle, D. & Powell, T. (2004). Exploring teacher biases when nominating students for gifted programs. *Gifted Child Quarterly,* 48(1),21-29.

Speirs, N. K. L., Adms, C. M., Pierce, R.L., Cassady, J. C., & Dixon, F. A. (2007). Fourth-grade teachers' perceptions of giftedness: Implications for identifying and serving diverse gifted students. *Journal for the Education of the Gifted,* 30, 479-499.

Tanya, M. A. (2012). studied teacher self-efficacy: a link to student achievement in English language and mathematics in Belizean primary schools.

Van Uden, J. M., Ritzen, H., & Pieters, J. M. (2013). 1 think I can engage my students. Teachers' perceptions of student engagement and their beliefs about being a teacher. *Teaching and Teacher Education,* 32, 43-54.