# Teachers' competence in identifying pupils with learning disabilities: A study in Nigerian primary schools

# Mfon Eyo and Eme Nkanga

University of Calabar, Nigeria

This study used a survey designed to establish the predictors of teachers' competence in identifying pupils with suspected cases of learning disabilities. An instrument developed by the researchers, the Questionnaire on Teachers' Competence in Identifying Pupils with Learning Disabilities (QTCIPLD) gather data from a sample of 200 teachers from 10 public primary schools in Calabar Municipality, Cross River State, Nigeria. The QTCIPLD was validated by three experts while its reliability was established as 0.83 using Cronbach's alpha. The findings indicated that the level of competence of teachers in identifying students with suspected cases of learning disabilities was low; and that differences in teachers' competence could be related to gender, educational qualification and professional status, but not to years of teaching experience. It is concluded that some personal variables are predictors of teachers' level of competence in identifying students with suspected cases of learning disability, while some are not. We recommend that counsellors should liaise with other stakeholders to organise training programs and workshops aimed at improving the level of competence of teachers with regards to identifying pupils with suspected cases of learning disabilities, thus facilitating referrals for expert assessments.

# Introduction

The school environment is made up of people with divergent characteristics; this variety includes personal, ethnic, social and religious differences. Apart from these features that are commonly seen and easily identified, there are other dissimilarities amongst the constituents of the school system that are not easily seen and identified, even though they have great influence on the outcome of the school system. One of such variables is the learning ability of the students in the school. Some students can learn easily and without much difficulty, while others have great difficulties in learning. This leads to the concept of learning disability in the school system.

Historically, the concept is said to have come to the fore when on 7 November 1896, a certain Morgan, a general practitioner in Sussex, England, wrote in the *British Medical Journal* about a 14-year old, Percy, who lagged behind his peers when it came to learning how to read, even though he was intellectually equal with his peers, was intelligent, bright, and quick with learning games (Adam, Bambolkar, Fernandes, Srivastava, Yeolekar & Kulkarni, n.d.). This sparked off research and advocacy which centred on children who appeared normal in many intellectual skills, but also showed a variety of cognitive difficulties which seemed to interfere with their classroom activities, including reading and writing (Adam et al., n.d.)

Learning disabilities are said to be neurobiological in origin. The *Diagnostic Manual of Mental Disorders (DSM-5)* (American Psychiatric Association, n.d.) defined learning disability, also called specific learning disability, as a condition involving "difficulties in reading, writing,

arithmetic, or mathematical reasoning skills during formal years of schooling." According to Adam et al. (n.d.), the U.S. Government in Public Law 94-142 defined learning disability as a

disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, spell or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, or mental retardation, emotional disturbance or environmental, cultural or economic disadvantages.

The American Psychiatric Association (n.d.) in its *Diagnostic and Statistical Manual (DSM-V)* stated that:

Learning disorders are diagnosed when the individual's achievement on individually administered, standardized tests in reading, mathematics or written expression is substantially below that expected for age, schooling and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living.

These definitions have thrown up some important points about learning disabilities, including that the disorder is most likely to be identified during schooling as failure to achieve in some academic activities. This could lead to diagnoses that the sufferers may have normal intelligence yet are having learning disabilities; and that those that are physically able may have learning disabilities. This has contributed to the justification for conducting the present study, as it is a teacher who is competent in identifying suspected cases of learning disabilities that would be able to do so in the school system.

There are different types of learning disabilities. While Alahmadi and El Sayed El Keshky (2019) and Gupta (2014) identified the common learning disabilities to include dyslexia, dysgraphia, dyscalculia and dyspraxia, Zakopoulou, Sarris, Tagkas, Tsampalas and Vergou (2018) saw dyslexia, dysgraphia, dyscalculia and attention deficit hyperactivity disorder (ADHD) as the most common types of learning disabilities. Other authors have identified dyslexia, dyscalculia and dysgraphia as the common types of learning disabilities (Indiana Department of Education, 2017; Karimi, 2013; Brooks, 2012). The present study restricted its scope to dyslexia, dyscalculia and dysgraphia.

Dyslexia is a disorder in which despite normal intelligence, the child has severe impairment in ability to read. It can be described simply as a reading disorder. Characteristics of dyslexia include difficulty with recognition of words, inaccurate pronunciation, and poor spelling. Dyscalculia can be understood simply as a disorder in mathematics. It refers to innate and severe difficulty in acquiring mathematical skills, understanding and manipulating numbers, and understanding functions and symbols necessary for calculations. Some features of a dyscalculic include difficulty in counting, confusion with mathematical signs, transposing numbers when repeated (e.g. changing 89 to 98), and inability to do simple mental arithmetic. Dysgraphia on the other hand is a

disorder that has to do with writing, spelling and handwriting. The characteristics of this disorder include writing with odd spacing, poor spelling, and illegible handwriting. (Nagavalli, 2015; National Association of Special Education Teachers, n.d.).

Learning disability is a disorder that should not be treated with levity because of its overarching effects on the sufferers. Apart from its negative effect on academic achievement of the children, learning disabilities also lead to behavioural problems, poor self-esteem, poor interpersonal/social interactions, deficient grades, early drop-out, and delinquency (Indiana Department of Education, 2017). Alahmadi and El Sayed El Keshky (2019) averred that the effect of learning disabilities on children include difficulty in trying their best, inability or poor self-motivation, and low attention span. Considering the wide ranging effects of learning disabilities on children, such children require unique attention and support from teachers, family members and significant others. The support cannot be forthcoming without proper identification of the child as having learning disability. This justifies the present study, which sought to establish the competence level of teachers in identifying pupils with suspected cases of learning disability.

Kuyini (2015) saw learning disability as a concept relating to students who, despite normal intelligence, were not able to learn in the same way as their peers, and declared that there are many such students in regular classrooms. The global figure for learning disabilities, according to Sakhuja (2004), is 10% of school children. The Ministry of Health in Saudi Arabia reported that there are around 720,000 children with disabilities in the Kingdom. Considering a Saudi population of 29 million, this figure implies that out of 400,000 to 500,000 births annually, 400 to 500 children are born with disabilities (Ministry of Health, 2012). Kumar and Suman (2017) reported that the prevalence of students with learning disability in India varied from 10.76% to 13.41%. More so, researchers have established linkages between the different learning disabilities. Shalev (1997) reported that 17% of children with dyscalculia also suffered from dyslexia, while another 26% suffered from attention deficit hyperactivity disorder (ADHD). Glen (2014) added that about 25% of dyscalculics also have either dyslexia or ADHD. In the same vein, Basim, Fysal, Akhila and Aswathy (2019) reported on their study that ADHD was more common among children with learning disability. Considering the widespread nature of learning disorders, a study aimed at establishing the competence of teachers to identify suspected cases for further assessment is therefore justified.

Alahmadi and El Sayed El Keshky (2019) investigated primary school teachers' knowledge of specific learning disabilities in Saudi Arabia, reporting that the level of knowledge of majority of primary school teachers about specific learning disabilities was average. With regards to demographic variables, they reported that there was no significant association between teachers' age, teaching experience and their level of knowledge on learning disabilities; while other socio-demographic variables such as gender, marital status, type of school and the class being taught had significant associations with primary school teachers' level of knowledge on learning disabilities. Basim et al. (2019) investigated knowledge level on learning disability among primary school teachers and reported that though primary school teachers have some knowledge about learning disabilities, such knowledge was grossly insufficient for its practical application in the classroom. This again

indicated that some teachers were not adequately equipped to identify and remediate learning disabilities in the classroom.

In a study on competency of school teachers regarding learning disabilities, Williams, Singh and Narayan (2013) reported that there was no association found between sociodemographic data and knowledge and attitude of primary school teachers regarding learning disabilities. These previous studies have further justified new research in Calabar Municipality to ascertain if personal variables, including gender, educational qualification, years of teaching experience and professional status of a teacher, do predict teachers' competence in identifying pupils with suspected cases of learning disabilities within the study area. While the other variables are self-explanatory, the authors consider it appropriate to explain professional status. By professional status, the authors refer to those who have a basic qualification in teaching/education and those who do not. For instance, the Nigeria Certificate in Education (NCE) is the basic qualification for teaching, awarded by Colleges of Education in Nigeria. Higher qualifications in education awarded by universities include Bachelor of Education (BEd), Post Graduate Diploma in Education (PGDE), Master's degree in Education (MEd), and Doctor of Philosophy degree in Education (PhD). Those who possess any of these are considered as professional teachers. However, there are people with non-education-related degrees who are also teaching in schools. This includes those with first or higher degrees in any field other than education; the authors categorised them as non-professional teachers. The researchers sought to find out if the basic training in teaching given to the professional teachers enhances their competence in identifying suspected cases of learning disabilities.

#### Research questions

- 1. What is the level of teachers' competence in identifying learning disability?
- 2. How does teachers' level of competence in identifying learning disability differ based on gender?
- 3. How does teachers' level of competence in identifying learning disability differ based on educational qualification?
- 4. How does teachers' level of competence in identifying learning disability differ based on teaching experience?
- 5. How does teachers' level of competence in identifying learning disability differ based on professional status of the teacher?

#### **Hypotheses**

- H<sub>o</sub>1: There is no significant difference between the male and female teachers on their level of competence in identifying learning disability.
- H<sub>o</sub>2: There is no significant difference, based on qualification of the teachers, on their level of competence in identifying learning disability.
- H<sub>o</sub>3: There is no significant difference, based on years of teaching experience of the teachers, on their level of competence in identifying learning disability.
- H<sub>o</sub>4: There is no significant difference between professional and non-professional teachers on their level of competence in identifying learning disability.

### Method

This study, situated in Calabar Municipality of Cross River State, Nigeria, adopted the survey research design to establish the predictors of teachers' competence in identifying pupils with suspected cases of learning disabilities. The population of the study involved all the teachers in the sixteen public primary schools in Calabar Municipality. 200 teachers were selected as sample for the study using a multi-stage sampling approach. The first stage was to randomly select 10 primary schools in Calabar Municipality, then 20 teachers were randomly selected from each of the 10 randomly selected public primary schools.

The study used an instrument developed by the researchers, *Questionnaire on Teachers' Competence in Identifying Pupils with Learning Disabilities* (QTCIPLD) to gather data. The QTCIPLD had Sections A and B. Section A sought to gather demographic information about the respondents, while Section B had 18 items which sought to establish the extent of primary school teachers' ability to identify pupils with suspected cases of learning disability. Section B had *Strongly agree, Agree, Disagree* and *Strongly disagree* as the response options, with scoring 4, 3, 2 and 1 respectively. The scoring was reversed for negatively worded items.

The QTCIPLD was validated by an expert each in Special Education, Measurement and Evaluation, and Guidance and Counselling, all from the University of Calabar, Nigeria. They vetted the draft of the instrument and their recommendations were incorporated in the final version of the instrument. The reliability of the instrument was established by administering the questionnaire to 20 primary school teachers in schools that were not part of the sample. The data generated from this instrument was analysed using Cronbach's alpha, which produced 0.83 as the reliability coefficient.

Direct delivery/self-administered technique was adopted for data collection. This involved visiting the sampled schools and administering the questionnaire to the sampled teachers. Some of the copies of the questionnaire were retrieved instantly, while a research assistant collected others on a later date. All 200 copies administered were retrieved and found usable. The data gathered and collated was analysed using mean, standard deviation, t-test and ANOVA. While the mean scores and standard deviation were used in answering the research questions, t-test and ANOVA were used in testing the hypotheses.

In establishing the level of competence, the mean score of each item and the cluster mean were compared with the real limit of numbers in answering the research question one. If the mean scores fell between 0.50 and 1.49, it indicated *very low competence*, 1.50 to 2.49 implied *low competence*, 2.50 to 3.49 meant *moderate competence* while 3.50 to 4.49 indicated high competence. In testing the hypotheses, the exact probability was compared with the level of significance. If the exact probability was greater than the alpha, the null hypotheses were accepted and retained; otherwise they were rejected.

# **Results**

# Research question 1

What is the level of teachers' competence in identifying learning disability?

Results are presented in Table 1.

Table 1: The mean and standard deviation for level of competence of teachers in identifying learning disability (N=200)

Item	Description	Mean	SD	Competence
1	Forgetfulness is a sign of learning disability in children	1.86	0.89	Low
2	Poor attention span is a feature of a child with learning disability	1.47	0.77	Very low
3	A child with poor handwriting is indicative of learning disability	1.48	0.64	Very low
4	Difficulty in spelling, reading or understanding what is read is a sign of learning disability`	2.68	0.87	Moderate
5	Dyslexia is characterised by difficulties in reading and writing	1.64	1.04	Low
6	Substituting, reversing, omitting or repeating letters and words is a sign of dyslexia	2.04	1.04	Low
7	Inability to recall known words with ease is a sign of dyslexia	2.06	1.01	Low
8	Confusion on words which sound similar, and poor spelling is a signal for dyslexia	1.55	0.78	Low
9	Very poor handwriting is a symptom of dysgraphia	1.75	0.59	Low
10	A struggling writing or very slow/inaccurate copying is a sign of dysgraphia in a child	1.53	0.91	Low
11	Writing with incomplete words or letters, omitting words while writing is a sign of dysgraphia	1.48	0.70	Very low
12	An odd position of the body, hand or paper while writing is a sign of dysgraphia	1.74	0.95	Low
13	Mixing up upper and lower cases, using odd sizes or shapes of letters is an indication of dysgraphia	2.37	0.71	Low
14	Having anxiety when performing or thinking about maths is a sign for dyscalculia	1.90	0.79	Low
15	Problems retrieving basic facts about arithmetic is a sign of dyscalculia	2.77	1.23	Moderate
16	Difficulty in solving addition, subtraction, division and multiplication is a sign of dyscalculia	2.21	0.89	Low
17	Difficulty in understanding time-related concepts such as days, weeks, etc. is a sign of dyscalculia	1.90	0.54	Low
18	A child with dyscalculia has problems making change and handling money	1.66	0.84	Low
Sumr	mary of results for the cluster	1.89	0.94	Low

Table 1 indicates that out of 18 features of learning disabilities, the teachers' average was moderate competence in identifying two, low competence in 13 and very low competence in three. The summary average for the cluster, 1.89, indicated that overall the teachers have low competence in identifying pupils with learning disabilities.

Additionally, the respondents were asked, as a measure of their competence, to define learning disability and list at least two learning disabilities that they knew (Table 2).

Table 2: Teachers' performance on defining and identifying learning disability

Performance measure	Able	Unable
Defining learning disability	10%	90%
Listing at least 2 common types of learning disabilities	21%	79%

Table 2's data further confirms that the competence of teachers with respect to identifying learning disability is low, as a very high percentage could not define learning disability, and could not name at least two types of learning disabilities correctly.

#### Research question 2

How does teachers' level of competence in identifying learning disability differ based on gender?

H<sub>o</sub>1: There is no significant difference between the male and female teachers on their level of competence in identifying learning disability.

The results summarised in Table 3 indicate that there is a difference between male and female teachers' mean scores on their level of competence in identifying learning disability, with female teachers having a higher mean score.

Table 3: t-test of significance of difference in the mean score on the level of competence in identifying learning disability by male and female teachers

Gender	N	Mean	SD	df	t	t <sub>critical</sub>	p	α	Decision	Inference
Male	76	1.84	0.87	198	-2.574	1.96	.01	.05	Reject Ho	Diff. is sig.
Female	124	1.92	0.98							

The t-test found probability less than alpha, leading to the rejection of the null hypothesis.

## Research question 3

How does teachers' level of competence in identifying learning disability differ based on educational qualification?

H<sub>o</sub>2: There is no significant difference, based on qualification of the teachers, on their level of competence in identifying learning disability.

Table 4: Means and standard deviations for the level of competence of teachers in identifying learning disability based on their qualification

Qualification	n	Mean	SD
NCE	57	1.97	0.98
BEd	65	1.99	0.91
BSc/BA/HND	49	1.76	0.90
MEd	27	1.66	0.93
PhD	2	1.99	1.05

In the third research question, the researchers considered the highest educational qualification of the teachers, irrespective of whether such qualification was in education/teaching field or not, with a view to establishing the influence of such qualification on competence in identifying suspected cases of learning disability. The results in Table 4 indicate that there are actually differences in the competence level amongst teachers with different qualifications. Hypothesis 2 was then tested with ANOVA to ascertain statistical significance, with results summarised in Table 5.

Table 5: ANOVA - level of competence of teachers in identifying learning disability, based on their qualifications

	Sum of squares	Mean square	df	F	$f_{critical}$	p	α	Decision	Inference
Between groups	55.00	13.75	4	15.748	3.00	.000	.05	Reject Ho	Diff. sig.
Within groups	3139.18	0.87	195						_
Total	3194.18		199						

Table 5 indicates probability is less than alpha and the calculated-f is greater than the critical-f, prompting rejection of the null hypothesis. There is a significant difference, based on qualifications of the teachers, on their level of competence in identifying learning disability.

# Research question 4

How does teachers' level of competence in identifying learning disability differ based on teaching experience?

 $H_0$ 3: There is no significant difference, based on years of teaching experience of the teachers, on their level of competence in identifying learning disability.

Table 6 indicates that while those with 1-5 years teaching experience have the same mean of 1.91 with those in the 11-15 years teaching experience, other categories of years of experience differ in their mean scores. Hypothesis 3 was then tested with ANOVA to ascertain statistical significance, with results summarised in Table 7.

Table 6: Mean and standard deviation for the level of competence of teachers in identifying learning disability, based on their teaching experience

Teaching experience	n	Mean	SD
1 - 5 years	56	1.91	0.89
6 - 10 years	46	1.93	0.97
11 - 15 years	53	1.91	0.97
Above 16 years	45	1.89	0.95

Table 7: ANOVA - difference in the mean score on the level of competence of teachers in identifying learning disability based on their teaching experience

	Sum of squares	Mean square	df	F	$f_{critical}$	Р	α	Decision	Inference
Between groups	6.28	2.09	3	2.361	3.00	.070	.05	Accept H <sub>o</sub>	Diff. n. s.
Within groups	3187.9	0.89	196						
Total	3194.1		199						

Table 7 indicates that the null hypothesis which states that there is no significant difference, based on years of teaching experience of the teachers, on their level of competence in identifying learning disability, was retained.

# Research question 5

How does teachers' level of competence in identifying learning disability differ based on professional status of the teacher?

H<sub>o</sub>4: There is no significant difference between professional and non-professional teachers on their level of competence in identifying learning disability.

Table 8: t-test - difference in the mean score on the level of competence in identifying learning disability, professional and non-professional teachers

Groups	N	Mean	SD	df	t	t <sub>critical</sub>	p	α	Decision	Inference
PT	149	1.94	0.95	198	4.685	1.96	.000	.05	Reject Ho	Diff. is sig.
NPT	51	1.77	0.91							

Notes: PT = Professional teachers; NPT = Non-professional teachers

Table 8 shows that a statistically significant difference in the mean scores of professional and non-professional teachers was found.

#### **Summary of findings**

- 1. The level of teachers' competence in identifying suspected cases of learning disability is low.
- 2. Significant differences in level of competence in identifying suspected cases of learning disability are found:
  - between male and female teachers;
  - based on teachers' qualifications;

- between professional and non-professional teachers.
- 3. No significant difference in level of competence in identifying suspected cases of learning disability is found based on years of teaching experience.

#### **Discussion**

The first finding of this study, arising from answer to research question one, indicates that the level of teachers' competence in identifying suspected cases of learning disability is low. This finding agrees with Alahmadi and El Sayed El Keshky (2019) who reported that the level of knowledge about specific learning disabilities was average for most primary school teachers. It also agrees with Basim et al. (2019) who reported that though primary school teachers have some knowledge about learning disabilities, such knowledge was very insufficient for practical application in the classroom. The finding of low competence may result from inadequate exposure of teachers to courses in special education during their initial teacher education programs. This finding may also be influenced by the fact that there a number of teachers in the school system who do not have a teaching qualification, so do not know about concepts such as learning disability. This finding therefore highlights a need to organise intensive in-service training programs for teachers to update their skills on contemporary issues in the school system.

The second finding of this study showed that gender is a predictor of teachers' level of competence in identifying suspected cases of learning disability, with female teachers having a higher mean score on competence level. This finding disagrees with Williams et al. (2013) who reported no association between socio-demographic data and knowledge and attitude of primary school teachers regarding learning disabilities. It however agrees with Alahmadi and El Sayed El Keshky (2019) who reported a significant association between gender and primary school teachers' level of knowledge on learning disabilities. This result, which indicates female teachers have higher competence, may perhaps be attributed to a propensity for females to be more caring, particularly towards children. Thus they may be more observant and able to identify differences between children with learning disability and other children.

Another finding of this study shows that there is a significant difference, based on qualification of the teachers, in level of competence in identifying suspected cases of learning disability. This finding differs from Williams et al. (2013) whose study indicated that knowledge and attitude of primary school teachers regarding learning disabilities did not have an association with socio-demographic data. Our findings may have arisen because those with teaching qualifications (NCE, BEd, MEd) have been introduced to concepts in special education, in which learning disability is part. Teachers in these categories constitute a higher proportion, compared with the non-professional category, who may not have had such exposure.

The finding concerning years of teaching experience indicates that it does not predict their level of competence in identifying suspected cases of learning disability. This finding is in accord with Alahmadi and El Sayed El Keshky (2019) whose study indicated no significant association between teachers' teaching experience and their level of knowledge

on learning disabilities. It also agrees with Williams et al. (2013) whose finding indicated no association of socio-demographic data with knowledge and attitude of primary school teachers regarding learning disabilities. The outcome here may have arisen because the level of competence amongst the teachers in identifying suspected cases of learning disability is generally low, so they do not seem to learn from one another in the course of their work.

This study also considered the professional background of the teachers and the influence of such affiliations on their competence in identifying suspected cases of learning disability. The results indicated that professional and non-professional teachers differ significantly on their level of competence in identifying suspected cases of learning disability. This finding is in disagreement with Williams et al. (2013) who reported that there was no association between knowledge and attitude of primary school teachers regarding learning disabilities and socio-demographic data. This result may have arisen because professional teachers may have been exposed to special education concepts during their teacher education programs, thus having some information about learning disabilities. Non-professional teachers, on the other hand, who did not experience a teacher education program may not have been exposed to such information.

#### Conclusion

This study investigated personal variables as predictors of teachers' competence in identifying students with learning disabilities. It was guided by five research questions and four hypotheses. The findings indicated that the level of competence of teachers in identifying students with suspected cases of learning disabilities is low; teachers differ significantly on their level of competence in identifying suspected cases of learning disability based on gender, educational qualification and professional status; but that there is no significant difference, based on years of teaching experience of the teachers, on their level of competence in identifying suspected cases of learning disability. It can therefore be concluded that gender, educational qualification and professional status are predictors of teachers' level of competence in identifying students with learning disability; while teaching experience does not predict teachers' level of competence in identifying students with learning disability.

This conclusion has implications for both counselling and teaching. The result indicating low competence of teachers in identifying students with suspected cases of learning disabilities implies that many pupils may be having this disorder without being noticed, identified and referred by the classroom teachers for further professional assessment. The negative impact of such scenarios in the teaching and learning process is glaring; as such situations will mar the outcomes. This has also brought to the fore the need for professional counsellors to liaise with special educators to sensitise the different stakeholders in the school system to this development, and also devise strategies to improve teachers' competence in identifying suspected cases of learning disabilities.

#### Recommendations

The following recommendations are made based on the findings of this study.

- 1. Counsellors should coordinate training programs for teachers to enhance their level of competence with regards to learning disabilities as the findings of this study indicate that such competence is low. Counsellors, if considering themselves competent, can facilitate such training, or they can invite competent resource persons to deliver consultation on learning disabilities, with a view to boosting the knowledge of teachers on this concept, and enhance their ability to identify suspected cases of learning disabilities.
- 2. The gender variable should be taken into consideration when interventions are being initiated for teachers to improve their level of competence in identifying learning disabilities, because this study indicated that there is a gender disparity. Such interventions should ensure that both male and female teachers show progress in their level of competence in identifying suspected cases of learning disabilities.
- 3. A part of the findings of the study has indicated that educational qualification is a predictor of teachers' level of competence in identifying suspected cases of learning disabilities. The government should therefore encourage teachers to embark on inservice training, and to upgrade their educational qualifications. This will enhance their capacity and level of competence in identifying suspected cases of learning disabilities.
- 4. The counsellor should come up with intervention strategies that will shore up teachers' level of competence in identifying suspected cases of learning disability, irrespective of their years of teaching experience. This is suggested as teaching experience does not influence the teachers' competence in this regard. Such intervention programs should therefore target every teacher in the school system, whether old or new, experienced or inexperienced.
- 5. Professionalism is an important factor in job delivery. Despite this study's finding that the level of competence is low, it also indicated that professionalism is a determining factor with respect to teachers' competence in identifying pupils with suspected cases of learning disability. It is therefore recommended that teachers with professional qualifications should be given preference during recruitment, as their professional status could indicate higher competence in identifying pupils with learning disabilities.

### References

Adam, M., Bambolkar, S., Fernandes, N. C., Srivastava, R., Yeolekar, M. E. & Kulkarni, M. (n.d.). *Learning disabilities*. Rehabilitation Council of India. http://www.rehabcouncil.nic.in/writereaddata/ld.pdf

Alahmadi, N. A. & El Sayed El Keshky, M. (2019). Assessing primary school teachers's knowledge of specific learning disabilities in the Kingdom of Saudi Arabia. *Journal of Educational and Developmental Psychology*, 9(1), 9-22. https://doi.org/10.5539/jedp.v9n1p9

American Psychiatric Association (n.d.). *Diagnostic and statistical manual of mental disorders* (DSM-5). https://www.psychiatry.org/psychiatrists/practice/dsm

- Basim, A. C. T., Fysal, N., Akhila, T. A. & Aswathy, P. S. (2019). Assessment of knowledge level on learning disability among primary school teachers. *International Journal of Contemporary Pediatrics*, 6(2), 1-5. https://www.ijpediatrics.com/index.php/ijcp/article/viewFile/2249/1548
- Brooks, M. (2012). Evaluating learning disabilities and learning difficulties as risk factors of delinquency. Unpublished honors thesis, The University of Southern Mississippi, USA. https://aquila.usm.edu/cgi/viewcontent.cgi?article=1017&context=honors\_theses
- Glen, S. (2014). *Dyscalculia: An essential guide for parents*. https://www.statisticshowto.datasciencecentral.com/wp-content/uploads/2014/06/Dyscalculia-createspace-v3.pdf
- Gupta, N. (2014). Dyscalculic co-morbidity in secondary school going children: A comprehensive study of predicting parameters and remedies. Unpublished PhD thesis, Dayalbagh Educational Institute (Deemed University), Dayalbagh, India. https://pdfs.semanticscholar.org/6336/5acd9a0e0227b997c066d7cb177070e441d6.pdf
- Indiana Department of Education (2017). *Dyslexia, dysgraphia, dyscalculia*. https://www.doe.in.gov/sites/default/files/specialed/dyslexia-dysgraphia-dyscalculia.pdf
- Karimi, S. (2013). Is there gender difference between learning disabled students' performances in mathematical activities? (Case study). *Mathematics Education Trends and Research*, 2013, Art. metr-00030. https://doi.org/10.5899/2013/metr-00030
- Kumar, J. & Suman, S. (2017). Identification and prevalence of learning disabled students. *International Journal of Scientific and Research Publications*, 7(3), 317-319. http://www.ijsrp.org/research-paper-0317/ijsrp-p6350.pdf
- Kuyini, A. B. (Project leader) (2015). Disability rights awareness and inclusive education: Building capacity of parents and teachers. A manual for in-service training and community education. https://www.un.org/disabilities/documents/unvf/DisabilityRights\_InclusiveEduTrainingManual\_10Dec2015.pdf
- Ministry of Health, Saudi Arabia (2012). *Health statistical year book 2012*. Riyadh: Ministry of Health. https://www.moh.gov.sa/en/Ministry/Statistics/book/Pages/default.aspx
- Nagavalli, T. (2015). A study of dyscalculic primary school children in Salem District and evaluation of applicability of innovative strategies as remedial measures. Unpublished thesis, Sri Sarada College of Education (Autonomous), Salem, India. http://www.ncert.nic.in/departments/nie/der/publication/pdf/Dyscalculic.pdf [not found 22]
  - http://www.ncert.nic.in/departments/nie/der/publication/pdf/Dyscalculic.pdf [not found 22 Aug 2020; see https://www.coursehero.com/file/21126319/Dyscalculic/]
- National Association of Special Education Teachers (n.d.). *Characteristics of children with learning disabilities*. NASET LD Report #3.

  https://www.naset.org/fileadmin/user\_upload/LD\_Report/Issue\_\_3\_LD\_Report\_Chara
  - $https://www.naset.org/fileadmin/user\_upload/LD\_Report/Issue\_\_3\_LD\_Report\_Characteristic\_of\_LD.pdf$
- Sakhuja, S. (2004). Education for all and learning disabilities in India. Cited in Alahmadi, N. A. & El Keshky, M. (2019). Assessing primary school teachers's knowledge of specific learning disabilities in the Kingdom of Saudi Arabia. *Journal of Educational and Developmental Psychology*, 9(1), 9-22.
- http://www.ccsenet.org/journal/index.php/jedp/article/download/0/0/37471/37785
- Shalev, R. S. (1997). Neuropsychological aspects of developmental dyscalculia. *Mathematical Cognition*, 3(2), 105-120. https://doi.org/10.1080/135467997387434

Williams, A., Singh, G. & Narayan, P. J. P. (2013). Competency of school teachers regarding learning disabilities. *IOSR Journal of Nursing and Health Science*, 2(2), 20-23. http://www.iosrjournals.org/iosr-jnhs/papers/vol2-issue2/D0222023.pdf?id=7159 Zakopoulou, V., Sarris, D., Tagkas, P., Tsampalas, E. & Vergou, M. (2018). Learning disabilities and disruptive behavior: Research of observing students in primary school. International Journal of School and Cognitive Psychology, 5(3), 1-9. https://doi.org/10.4172/2469-9837.1000212

**Dr Mfon Eyo** holds a PhD in guidance and counselling, and lectures in the University of Calabar, Calabar, Cross River State, Nigeria. His research interest spans across cyber counselling, ICT in education, vulnerable group (women, children/youth and the aged). He is an educationist par excellence, and has published in many reputable journals. Email: dr.mfon.eyo@gmail.com

ORCID: 0000-0003-2324-9549 https://web.facebook.com/mfon.eyo https://www.linkedin.com/in/dr-mfon-eyo-165a3941/

Mrs Eme Nkanga is a Masters degree student in the Department of Guidance and Counselling, University of Calabar, Calabar, Cross River State, Nigeria. She is a member of the Counselling Association of Nigeria, and has a passion for research on children. Email: emenkanga@gmail.com

**Please cite as**: Eyo, M. & Nkanga, E. (2020). Teachers' competence in identifying pupils with learning disabilities: A study in Nigerian primary schools. *Issues in Educational Research*, 30(3), 883-896. http://www.iier.org.au/iier30/eyo.pdf