A BRIEF REVIEW OF FUNCTIONAL COMMUNICATION TRAINING FOR CHILDREN WITH AUTISM

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Abstract: Functional communication has had many positive effects on children; this article will be mostly on how effective FCT is with students with autism. FCT is a treatment that can replace aberrant behaviors with a positive form of communication and that will eventually eliminate or reduce most aberrant behavior. Electronic and manual searches were conducted in Psych Info, ERIC, Web of Knowledge, as well as the reference sections of the materials that were located. The overall outcomes in this brief review indicated the FCT is an effective intervention strategy for students with autism.

Key Words: functional communication training (FCT), special education, behavior disorders, at-risk students, education, autism

Introduction

People and young children with autism (ASD) is a developmental disability affecting the lives of lives of thousands of children, (1 in 88). The essential features of ASD included impairments in social interaction and communication skills (Richmond, Conroy, & Taketo, 2006). Also when students with ASD have those impairments in communication skills they can often exhibit higher levels of aberrant behavior, such as hitting, biting, screaming, self-injurious behaviors, and many other behaviors that can be harmful to themselves or others.

In recent studies researchers have studied the relationship between aberrant behaviors and communication skills, (Bott, Farmer, & Rhode, 1997). In these studies they have found that usually impairment in communication skills will cause the aberrant behavior and there is a strong relationship between these two things. In a study with Sigafoos (2000) found that impaired communication development may actually cause aberrant behaviors because of people with a high speech skill deficient displayed, aberrant behaviors such as self injury and aggression. This could be because of the people not being able to communicate what they want and then having this that turn into frustration. This frustration often becomes a setting event for aberrant behavior (Carr & Durand, 1985)
Functional Communication Training

A treatment that has been proven as an effective way of introducing a way of communication to children with ASD has been functional communication training. This treatment is an evidence-based practice that has the potential to impact the communication skills and aberrant behavior with children with ASD (Carr & Durand, 1985). FCT was developed in the mid 1980’s. FCT requires a functional analysis (FA) be carried out through all the functions of behavior. These functions include escape, attention, tangible, or sensory. Next, the functional analysis will assess the function of behavior through these various conditions. Once the behavioral function has been determined, this will eventually lead to replacing the aberrant behavior with a communicative response that serves the same function (Machalicek, O'Reilly, Rispoli, Davis, T., Lang, Franco, et al., 2010; Carr & Durand, 1985).

To obtain more information regarding the child or person, a FA usually employs interviews, direct observations, and analog probe assessments. The interviews we will usually ask the caregivers, parents/guardian behavior related questions that have to deal with their aberrant behavior, such as when does it occur, are there any signs of build up before the behavior happens, and so on. Direct observations also happen in the natural environment, clinic settings, home, and anywhere the person usually will be at, at any point of the their life on a daily bases, also through the interview the behaviorist can make hypothesis based on where the behavior happens the most.

After this process is completed, the interventionists can identify a communicative response to teach the person that will replace the aberrant behavior. This communication can be verbal language, picture communication, gestures, or assistive technology (Brady & Halle, 1997). For example when there is a task placed on a person like reading, we can give them a break card to let them cool down and become less frustrated, also we could use this as a help card if they need to ask for help.

Then the final step in this process involves ignoring (extinction) the aberrant behavior and prompting to use the communicative response that replaces the aberrant behavior. FCT shows that it is effective treatment because it should increase the communication and decrease aberrant behavior.

Sample Studies on FCT

Mancil and Bowman. (2010) worked a four-year-old boy with autism who seldom used spontaneous verbal language to communicate his needs and wants. His mother wanted a technique that would help in communicate in the home and school environment. This participant was delayed across all areas of development. The primary behaviors that were evaluated were the tantrums (throwing items on the floor, screaming, etc.) and how many communication response the participant gave. In Mancil’s experiment they used a multi-element design (Kazdin, 2011). There was a total of 24 sessions and there were four demands, demand A was consisted of two conditions baseline, and intervention which were verbal mand, and spontaneous communication. Mand B, C, and D consisted of three phases, verbal mand, spontaneous
communication, and a distracter. At the end of this experiment the researchers found that FCT was shown to be effective because the aberrant behavior decreased dramatically and his communication increased in the home setting. Some limitations they said to think about were that there was only one participant who was higher functioning, so it could be viewed as a weakness for children who are functioning at different levels of severity.

Hines and Simonsen, (2008) employed young children with autism and taught picture icons. The setting was in an afternoon preschool with a 3½ year old male diagnosed with autism. He engaged in a great number aberrant behaviors. They decided that FCT was the best treatment. The study had three phases, baseline, teaching, and maintenance. The training phase included the implantation of picture cards. After this the prompts were faded. Overall the participant learned how to appropriately use picture cards to request desired items, this also decreased the disruptive behavior and increase appropriate engaged behavior.

Conclusions

The research reviewed showed that FCT was a very effective program to employ with children with autism. Showing this is very important because in our world today we have a lot more cases with children with autism and usually effective commination is affected by this disability.

Yes there are some limitations to this treatment, some of which most of the studies are single case designs and most of the time are higher functioning children with autism. Also sometimes not all settings or environments in the child’s life will generalize these treatments. The goal is to get more communication out of children who have very limited communication skills and functional communication training does do this. It shows that it is effective in the aspect of taking the aberrant behavior replacing it with an appropriate way of communication and in the process decreasing the aberrant behavior and increasing the communication in children with ASD.

If implemented more in the schools and home setting one could potentially teach children with ASD to communicate in a more appropriate way. Teaching them functional skills such as being able to communicate could prevent them from being overly noticed in society and this should lead to less stigmatization (Mancil, 2006). With FCT we can have a quick and easy way to communicate, especially with all the new technology we now have that can go anywhere with children and would hopefully generalize faster because of this equipment (Mancil, 2006; Koegel &Kern-Koegel, 2006)

Over all this treatment has been shown effective and really can assist children with ASD to communicate what they want and what they need (Koegel & Kern-Koegel, 2006). In the past, this has been very difficult for them to do. FCT is an effective treatment that does and will help more children with communication problems (Kurtz Boelter, Jarmolowicz, Chin, & Hagopian, 2011; Mancil, Conroy, Nakao, & Alter, 2006). We would recommend these procedures to any parent who wants to help their child have more communication. This is because FCT has shown to have impressive outcomes. Also, it can help parents as well as therapists determine what function or functions a client’s behavior has. Once this has been determined, FCT can be
implemented to suggest a replacement behavior with a different communication skill. How FCT is individualized should be determined on a client or child-by-child basis.

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CONFRONTING THE CHALLENGES BEDEVILLING WORK RELATED LEARNING AT A SELECTED UNIVERSITY IN ZIMBABWE: MENTORS’ PERSPECTIVES

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Abstract: The study sought to interrogate the alignment of the university’s curriculum to industrial practice and establish the factors that compromised effective implementation of the work-related learning (WRL) programme from a mentors’ perspective. The study employed a qualitative research design and the study participants were selected through the purposive sampling technique. The data was solicited through unstructured interviews and the interviewees comprised nine academic mentors and twenty four company mentors. The study established that the key factor that caused the misalignment between the university’s curriculum and industrial practice was the lack of collaboration between the academic mentors and company mentors during course design. It also established that the main factors that affect the effective implementation of the WRL programme were ineffective communication of the university curriculum to the company mentors and poor collaboration between the academic mentors and the company mentors during supervision and assessment of the students’ performance.

Key words: work-related learning; academic mentor; company mentor; university curriculum; communication; collaboration

Introduction

“Work-related learning (WRL) is a planned activity that uses the context of work to develop knowledge, skills and understanding useful in work, including learning through the experience of work, learning about work and working practices, and learning the skills for work” (Work-Related Learning Guide, 2008: 7). Its objective is to bridge the gap between classroom tuition and industrial practice by providing the students an opportunity to learn direct from actual work experience. Universities and industry have been collaborating for over a century and when companies and universities work in tandem to push the frontiers of knowledge, they become a powerful engine for innovation and economic growth (Science/Business Innovation Board, 2012).

The Northern Illinois University, Faculty Development and Instructional Design Center module (undated), states that experiential learning could be understood as learning through action, learning by doing, learning through experience, and learning through discovery and exploration. Instruction is designed to engage students in direct experiences which are tied to real world
problems and situations in which the instructor facilitates rather than directs student progress, ibid. Inspired by earlier work by John Dewey and Kurt Lewin, David A. Kolb believes, “learning is the process whereby knowledge is created through the transformation of experience” , (Kolb,1984).

As such, WRL programmes are designed to expose students to the practical world of work in order to enhance their employability when they complete their degree programmes. Company mentors are responsible for scheduling the company activities that the student should cover as well as the day to day guidance, supervision and assessment of the students during the WRL period. The academic mentors are responsible for designing the university curriculum and undertaking supervisory visits to assess the students’ performance and the appropriateness of the attachment places. The students are required to secure their own places of attachment, maintain a log book detailing the work related activities they cover during the period of attachment and to submit at least two performance related reports. The academic and company mentor, however, have a joint responsibility of ensuring the success of the WRL programme.

**Literature Review**

Effective WRL is dependent on a successful three-way relationship between student, academic tutor and in-company mentor stakeholders (Roodhouse and Mumford, 2010) and a clear understanding by the three parties of the WRL programme and the expected contribution by each stakeholder to a successful outcome [Benefer,( 2007) in Cutler,( 2012)]. The objectives and pedagogical activities of the WRL programme must therefore be clearly communicated to all the stakeholders. However, “whilst the classroom communication between students and tutors is excellent, students frequently bemoan lack of sufficient access to their mentor and limited understanding of the module objectives by the mentor as a result” Cutler (2012: 2). He further observes that attempts to invite company mentors into the university for briefings or discussion are often stymied by the company-mentors’ multiple work priorities resulting in a general reliance on the student to communicate academic information to the mentor. According to Cutler (2012) such interactions are usually faced with difficulties, such as follows:

- At the beginning of a work based learning module the student cannot be expected to understand the scope of the content and learning objectives well enough to give their mentor a clear picture of what will be required in terms of support over the remainder of the module
- The student is almost always hierarchically below the mentor and may have difficulty in “managing” the support relationship
- Mentors are often not necessarily “in-company champions” of foundation degree learning – they may simply be assigned to the task – and hence the student’s needs may not be given sufficient credibility within the company environment
Mentors are usually subject to many demands which prevent them from organising regular support sessions or meetings with academic tutors who, in turn, would have extreme difficulty in physically meeting with as many as 25 mentors several times during the course of a module.

According to Matamande et al. (2008) there are a number of factors that affect the effectiveness of industrial attachment programmes and these encompass the assessment methods employed, and the perception of the host company towards industrial attachment.

STATEMENT OF THE PROBLEM

Students on WRL programmes often take an inordinately long time to adapt to industrial practice and, consequently, many of them fail to perform to the companies’ expectations from the outset. On the whole, students are not adequately prepared for industrial attachment owing to misalignment between the university curriculum and industrial practice. Media is also awash with calls to realign university curricula and the demands of industry. The study therefore sought to interrogate the alignment of the university’s curricula to industrial practice and examine the factors that hamper effective implementation of the work-related learning (WRL) programme.

OBJECTIVES OF THE STUDY

The objectives that guided the study were to:

- Determine the key factors that cause misalignment between the university curriculum and industrial practice.
- Establish the key factors that downgrade the implementation of the WRL attachment programme.
- Provide appropriate recommendations to improve the effectiveness of the WRL programme.

RESEARCH METHODOLOGY

Research design

The study employed a qualitative research design. The qualitative research design facilitates understanding of behaviours and perceptions of members of an organisation and, according to Marvasti (2004), it provides a detailed description and analysis of the quality or the substance of the human experience. The design was therefore deemed most appropriate in capturing the experiences and perceptions of the academic mentors and the company mentors relative to the effectiveness of the WRL programme.
Data collection and analysis

The study participants were selected through the purposive sampling technique. Purposive sampling is a judgmental sampling technique (Punch, 2005) that involves handpicking supposedly typical or interesting subjects (Baxter et al, 2001) who are likely to be knowledgeable and informative about the phenomenon the researcher is studying (Leedy, 1997). Thus, participants were purposively selected from academic and company mentors.

The data was solicited through unstructured interviews. The unstructured interview approach was adopted for the study because it does not impose any limitations in the manner that the study participants express themselves. According to Bryman & Bell (2003), in an unstructured interview the researcher only has an interview guide or aide memoire listing the topics or issues to be covered only, without any specific questions prepared in advance. The interview guide serves as a reminder to the researcher for the main issues and topics that need to be covered and the respondents may answer the questions in any way that seems sensible to them (Fisher et al, 2010). The unstructured nature of the interview provided the researcher the flexibility to explore exhaustively all the pertinent and related issues. A total of thirty three interviews were held and the interviewees comprised nine academic mentors and twenty four company mentors.

During analysis, the data was coded into two categories according to the first two objectives of the study namely, ‘factors causing misalignment between university curriculum and industrial practice’ and ‘factors that downgrade the effectiveness of the WRL programme’.

RESEARCH FINDINGS AND DISCUSSIONS

Respondents’ Sex profile

Four academic mentors that were interviewed were drawn from the Faculty of Commerce and five were from the Faculty of Social Sciences. Twenty four company mentors were drawn from host companies scattered all over the country. Below is the sex-profile of the respondents:

<table>
<thead>
<tr>
<th>Designation</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Mentors</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Company Mentors</td>
<td>15</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>12</td>
<td>33</td>
</tr>
</tbody>
</table>

*Source: Survey (2013)*
Alignment of university curriculum to industrial practice

Almost all the academic mentors interviewed indicated that they used textbooks and journals as well as internet resources to design their respective courses. They admitted that they did not particularly take into account industrial practice during course design. This explains why a number of company mentors bemoaned inadequate student proficiency in computerised accounting and human resource payroll packages. They also observed lack of proficiency in business communication skills, particularly in students from the Faculty of Social Sciences. Many of the academic mentors indicated that they themselves had neither undertaken any WRL nor had they had any industrial experience. This suggests that the university’s curriculum is based almost purely on theoretical knowledge with very little, if any, consideration of the obtaining industrial practices.

When asked why they had not fused in the elements of the industrial practice, most of the academic mentors insisted that university regulations did not explicitly provide for collaboration with external institutions during course design. They indicated that regulations are amended after at least three years, a period that lapses when lots of initiatives would have been roped in by industry in dynamic environments. And yet industry gives incessant calls that industrialists be included in the crafting of curricula in tertiary institutions. “As long as the industrialists are not involved in the curriculum, we will continue to churn out graduates that are not relevant to the industries. Industrialists and officials from the education sector should sit down and come up with a curriculum that is relevant to the current job market demands,” insists the Zimbabwe Congress of Trade Union president George Nkiwane, Newsday Zimbabwe, September 17, (2013). Academic mentors interviewed unanimously agreed that their WRL policy was silent on such matters. They however, advised that, in order to address this shortcoming, tuition was made as practical as possible by, for example, employing such techniques as case study and role play.

In response to a question on what measures the academic mentors would recommend in order to improve the effectiveness of the WRL programme, they suggested that WRL policy, in particular, should make explicit provisions for lecturers to confer with the respective industrial companies or relevant professional bodies, as may be necessary, when designing courses. They also did concur on the fact that the university should freely sponsor academics to attend even workshops run by such professional bodies as the Institute of Chartered Accountants in Zimbabwe (ICAZ), Institute of Personnel Management of Zimbabwe (IPMZ), among others, to allow them to keep informed and relevant as well. They also indicated that the university could go further through sponsoring academics to assume membership of such relevant professional bodies.

All the company mentors advised that they had not been requested to contribute towards university curriculum. They all indicated that they were willing to contribute towards the design of an appropriate curriculum. They also advised that they had not seen the university’s
Some of them said they had expected that the academic mentors would appraise them during the supervisory visits but this was not done. When asked whether they had raised the issue with the academic mentors, some of the company mentors advised that they had not done so and indicated that the academic mentors were always in a hurry with their main interest being to talk to the student. Some of the mentors indicated that they had raised the issue with the academic mentors but all they got was a ‘scanty’ verbal response.

Factors that downgrade implementation of WRL programme

The study found that there was no collaboration between academic mentors and company mentors before the students were attached to the respective companies. The academic mentors advised that they were not involved in securing attachment places for students and that it was the students’ own responsibility to secure their own attachment places. They also advised that their initial meeting with the company mentors was during the first supervisory visit long after the students had assumed the WRL attachment. All this suggests that students did not receive any form of guidance in securing appropriate places for attachment relative to their respective disciplines and areas of specialisation.

Interviews with the company mentors confirmed that the students were responsible for securing their own attachment places. They also confirmed that the first time that they (company mentors) met with the academic mentors was after the students had already begun the WRL attachment, which in many instances was two to three months after the student had begun the attachment. The company mentors advised that they relied on the information provided by students to ascertain what the university’s curriculum covered. They indicated that in most instances the information provided by the students was scanty and this made it difficult to design an attachment programme that would appropriately meet the needs of both the student and the university. These findings are corroborated by Cutler’s (2012) observation that in WRL programmes, there was a general reliance on the student to communicate academic information to the company mentor and that such communication was not effective as it often lacked the required detail.

The company mentors bemoaned the fact that when the academic mentors made their supervisory visit they did not take time to discuss the overall WRL programme. They advised that the academic mentors were simply concerned with the operational activities of the host company that the students needed to cover and the students’ actual performance. They also advised that in many instances the academic mentors did not make advance appointments when conducting the supervisory visits and this often resulted in the academic mentors failing to meet the respective company mentors who would be engaged in other previously scheduled company activities. As a result, the academic mentors would simply leave assessment forms for the company mentors to complete and forward to the university. In such circumstances the academic mentors also had to rely on the students to furnish the necessary information about the host
company. Cutler’s (2012) observations on communication through students, mutatis mutandis, are also pertinent in this regard.

When asked about what needed to be done in order to enhance the effectiveness of the WRL programme, most of the company mentors suggested that instead of relying on the ad-hoc relationships that were established through students, the university should forge partnerships with companies who provide attachment places. According to the company mentors such relationships would facilitate issues such as effective communication of the university curriculum, appropriate placement of students, mutually beneficial supervisory visits by academic mentors, and productive meetings between academic mentors and company mentors.

**Conclusion**

The study concluded that:

- The key factor that causes the misalignment between the university’s curriculum and industrial practice was the lack of collaboration between the academic mentors and company mentors during course design. The university does not have an explicit policy that facilitates collaboration with external institutions hence the academic mentors tend to confine themselves to literary works when designing courses. Furthermore, the university does not have a policy that could facilitate sponsorship of lecturers to become active participants in industrial professional bodies through whom they would be consistently kept abreast with obtaining industrial practices. Consequently there is hardly any infusion of industrial practices into curriculum design.

- The key factors that downgrade the effectiveness of the implementation of the WRL programme are nature of the communication and lack of collaboration. Communication is ineffective, since, the company mentors are reliant on students to be informed about the university’s curriculum while on the other hand the academic mentors are also reliant on the students to be informed about the activities of the respective host companies. There is also lack of collaboration regarding the placement of students as the students are required to secure attachment places on their own, arrange their own terms of attachment and then advise the academic mentors. Similarly, there is no meaningful collaboration between the academic mentors and the company mentors with regards to the supervision of the students’ performance.

**Recommendations**

The study recommended that:

- The academic mentors should engage the company mentors when designing courses so that pertinent industrial practices could be infused into the university curriculum. This
would ensure that the university’s curriculum was appropriately aligned with the obtaining industrial practices.

- The university should sponsor lecturers to join and participate in the activities of relevant professional bodies. This would ensure that the lecturers were kept up to date of industrial practices in their respective disciplines.

- Communication and collaboration during the implementation of the WRL programme should be enhanced so as to ensure direct exchange of information between the academic mentors and the company mentors on key issues such as the university curriculum, company activities, WRL objectives and students’ performance.

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The Northern Illinois University, Faculty Development and Instructional Design Center module (undated)


INDIAN INITIATIVES AGAINST CHILD LABOUR

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ABSTRACT: Children have the right to a joyful childhood. Every child has the right to grow up in a safe and nurturing environment with protection and guidance from their guardians. Whether in the cities or in villages, at home or in schools, a child is always a child and deserves a childhood free from exploitation and abuse. The issue of child labour is a frontline concern in India, as early entry into labour market at formative stage of life does mean absconding from proper schooling leading to loss of future scope of better livelihood. This article deals with meaning, nature and some data related to child labour. Its main concern is to throw light on governmental and non-governmental initiatives against child labour to eradicate it from Indian society.

Key Words: child, labour, poor, organization, NCLP, Juvenile Justice, UNISEF, ILO, NGO

INTRODUCTION

Children are the greatest gift to humanity and Childhood is an important and impressionable stage of human development as it holds the potential to the future development of any society. Children who are brought up in an environment, which is conducive to their intellectual, physical and social health, grow up to be responsible and productive members of society. Every nation links its future with the present status of its children. Child labour is work that harms children or keeps them from attending school. Around the world and in India, growing gaps between rich and poor in recent decades have forced millions of young children out of school and into work. The International Labour Organization estimates that 215 million children between the ages of 5 and 17 currently work under conditions that are considered illegal, hazardous, or extremely exploitative. By performing work when they are too young for the task, children unduly reduce their present welfare or their future income earning capabilities, either by shrinking their future external choice sets or by reducing their own future individual productive capabilities. Underage children work at all sorts of jobs around the world, usually because they and their families are extremely poor. Large numbers of children work in commercial agriculture, fishing, manufacturing, mining, and domestic service. Some children work in illicit activities like the drug trade and prostitution or other traumatic activities such as serving as soldiers. Under extreme economic distress, children are forced to forego educational opportunities and take up jobs which are mostly exploitative as they are usually underpaid and engaged in hazardous conditions. Parents decide to send their child for engaging in a job as a desperate measure due to
poor economic conditions. It is, therefore, no wonder that the poor households predominantly send their children to work in early ages of their life. One of the disconcerting aspects of child labour is that children are sent to work at the expense of education.

**Definition**

As suggested by International labour Organization, the term *child labour* is best defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that is mentally, physically, socially or morally dangerous and harmful to children, or work whose schedule interferes with their ability to attend regular school, or work that affects in any manner their ability to focus during school or experience healthy childhood.

UNICEF defines child labour differently. A child is involved in child labour activities if between 5 to 11 years of age, he or she did at least one hour of economic activity or at least 28 hours of domestic work in a week, and in case of children between 12 to 14 years of age, he or she did at least 14 hours of economic activity or at least 42 hours of economic activity and domestic work per week.

*Child labour involves at least one of the following characteristics:*

- Violates a nation’s minimum age laws
- Threatens children’s physical, mental, or emotional well-being
- Involves intolerable abuse, such as child slavery, child trafficking, debt bondage, forced labour, or illicit activities
- Prevents children from going to school
- Uses children to undermine labour standards

**SOME DATA REFLECTING CHILD LABOUR**

- Of an estimated 215 million child labourers around the globe: approximately 114 million (53%) are in Asia and the Pacific; 14 million (7%) live in Latin America; and 65 million (30%) live in sub-Saharan Africa. Child labour can be found in nearly every industry.

- The International Labour Organization estimates that 218 million children ages 5-17 are engaged in child labour the world over. An estimated 14 percent of children in India between the ages of 5 and 14 are engaged in child labour activities, including carpet production. Some children are forced to work up to 18 hours a day, often never leaving the confines of the factory or loom shed.
An estimated 60% of child labour occurs in agriculture, fishing, hunting, and forestry.

About 14 million children are estimated to be directly involved in manufacturing goods.

Children as young as 6 or 7 years old break up rocks, and wash, sieve, and carry ore. Nine-year-old work underground setting explosives and carrying loads.

Many children, especially girls, work in domestic service, sometimes starting as young as 5 or 6. This type of child labour is linked to child trafficking. Domestic child labourers can be victims of physical, emotional, and sometimes sexual abuse.

Millions of children are involved in work that, under any circumstance, is considered unacceptable for children, including the sale and trafficking of children into debt bondage, serfdom, and forced labour. It includes the forced recruitment of children for armed conflict, commercial sexual exploitation, and illicit activities, such as producing and trafficking drugs.

In 2005, an estimated 5.7 million children were in forced and bonded labour. Most of these kids work for as less as Rs. 300 to Rs. 500 a month; sometimes for no money at all as they are given food to survive.

Government statistics say that there are 2 crore (20 million) child labourers in India, a country that has ambitions of becoming a global superpower in a few years.

A recent report, produced by the International Confederation of Free Trade Unions, says there are as many as 60 million children working in India's agricultural, industrial and commercial sectors.

Non-governmental agencies assert that the figure is more than 6 crore (60 million) including agricultural workers; some claim that the number could be 100 million, if one were to define all children out of school as child labourers.

Non-governmental organizations working towards eradicating child labour in India say that:

Two out of every three working children are physically abused. Over 50 percent children were being subjected to one or the other form of physical abuse.

50.2 percent children worked seven days a week.

53.22 percent children reported having faced one or more forms of sexual abuse.

21.90 percent child respondents reported facing severe forms of sexual abuse and 50.76 percent other forms of sexual abuse.
Every second child reported facing emotional abuse.

GOVT. INITIATIVES AGAINST CHILD LABOUR

After its independence from colonial rule, India has passed a number of constitutional protections and laws on child labour. The Constitution of India in the Fundamental Rights and the Directive Principles of State Policy prohibits child labour below the age of 14 years in any factory or mine or castle or engaged in any other hazardous employment (Article 24). The constitution also envisioned that India shall, by 1960, provide infrastructure and resources for free and compulsory education to all children of the age six to 14 years. (Article 21-A and Article 45). India has a federal form of government, and child labour is a matter of concern for states and central governments. The major national legislative developments so called Child labour laws in India include the following:

- **The Factories Act of 1948**: The Act prohibits the employment of children below the age of 14 years in any factory. The law also placed rules on who, when and how long can pre-adults aged 15–18 years be employed in any factory.
- **The Mines Act of 1952**: The Act prohibits the employment of children below 18 years of age in a mine.
- **The Child Labour (Prohibition and Regulation) Act of 1986**: The Act prohibits the employment of children below the age of 14 years in hazardous occupations identified in a list by the law. The list was expanded in 2006, and again in 2008.
- **The Juvenile Justice (Care and Protection) of Children Act of 2000**: This law made it a crime, punishable with a prison term, for anyone to procure or employ a child in any hazardous employment or in bondage.
- **The Right of Children to Free and Compulsory Education Act of 2009**: The law mandates free and compulsory education to all children aged 6 to 14 years. This legislation also mandated that 25 percent of seats in every private school must be allocated for children from disadvantaged groups and physically challenged children.

The problem of child labour continues to pose a challenge before the nation. Government has been taking various pro-active measures to tackle this problem. However, considering the magnitude and extent of the problem and that it is essentially a socio-economic problem inextricably linked to poverty and illiteracy, it requires concerted efforts from all sections of the society to make a dent in the problem. Employing children below 14 years will now attract a maximum jail term of three years or a fine of up to Rs 50,000. In India some initiatives to eliminate child labour are:
• **National Child Labour Policy**

Constitutional and legislative provisions providing protection to children against employment has been elaborated in the National Child Labour Policy announced in 1987. The policy addresses the complex issue of child labour in a comprehensive, holistic and integrated manner. The action plan under this policy is multi-pronged and mainly consists of:

− A legislative action plan; Focuses on general development programmes for the benefit of the families of children; and
− Project-based action plan in areas of high concentration of child labour.

• **National Child Labour Project Scheme**

For rehabilitation of child labour, Government had initiated the National Child Labour Project (NCLP) Scheme in 1988 to rehabilitate working children in 12 child labour endemic districts of the country. Its coverage has increased progressively to cover 271 districts in the country presently. As on date the Scheme is in operation in 266 districts. Under the NCLP Scheme, children are withdrawn from work and put into special schools, where they are provided with bridging education, vocational training, mid-day meal, stipend, health-care facilities etc. and finally mainstreamed to the formal education system. At present, there are around 7,000 NCLP schools being run in the country with an enrolment of three lakh children. Till date more than 9 lakh working children have already been mainstreamed to regular education under the NCLP Scheme. The NCLP scheme is a Central Sector scheme. Under the scheme, project societies are set up at the district level under the Chairpersonship of the Collector/ District Magistrate for overseeing the implementation of the project. Instructions to involve civil society and NGOs have also been issued. The number of child labourers rescued, rehabilitated and mainstreamed through National Child Labour Project Scheme during 2009 To December 2012.

• **Convergence with Programmes of Other Ministries/Departments**

Convergence of services from different government departments is one of the key components of NCLP which leads to the overall success of the programme. The NCLPs make efforts to utilize the services of other departments at various levels. Most important among the different departments has been the Department of Education. Since different forms of child labour cannot be ended only by improving school enrolment and educational rehabilitation, efforts for improvement of socio-economic environment of the child labour families will be strengthened. Some of the prominent schemes of these Ministries/department, which could have an explicit component for child labour and their family are given below and could be utilized for government interventions for elimination of child labour. This is however, only an indicative list and could be extended to others programmes to:
a) **Schemes of Department of Education**

- Sarva Shiksha Abhiyan (SSA)
- Mid Day Meal Scheme

b) **Schemes of Ministry of Women & Child Development:**

- ICPS scheme For providing food and shelter to the children withdrawn from work through their schemes of Shelter Homes, etc
- Balika Samridhi Yojana and admission of children withdrawn from into residential schools under SC/ST/OBC Schemes.

c) **Schemes of Ministry of Rural Development**

- Swarnjayanti Gramin Rozgar Yojana (SGRY)
- Indira Awas Yojana (IAY)

d) **Scheme of Ministry of Labour & Employment**

- Rashtriya Swasthya Bima Yojana (RSBY)
- Skilled Development Initiative Scheme (SDIS)

e) **Other Social security schemes**

- Indira Gandhi National Old Age Pension Scheme
- National Family Benefit Scheme
- Janani Suraksha Yojna Handloom Weavers’ Comprehensive Welfare Scheme
- Handicraft Artsans’ Comprehensive Welfare Scheme
- Pension to Master craft persons
- National scheme for Welfare of Fishermen and Training and Extension of Janashree Bima Yojana
- Government of India, Planning Commission, Working Group for Social inclusion of Vulnerable Group like Child Labour and Bonded and Migrant Labour in the 12th Five Year Plan (2012-17)

OTHER INITIATIVES AGAINST CHILD LABOUR IN INDIA

- **Govt.-UNICEF partnership to eliminate Child Labour**

Among the UN organizations, UNICEF has supported several initiatives against child labour, which have been undertaken by the Government of India, as well as by civil society organizations. Examples of such initiatives are the Bhiwandi Project in the Thane district of Maharashtra, which aims at preventing and rehabilitating children employed in the powerloom sector. UNICEF uses the Article 32 of the Convention on Rights of the Child (CRC), which articulates child labour as “any work that is likely to be hazardous or to interfere with the child’s education, or to be harmful to the child’s health or physical, spiritual, moral or social
“development”. In line with this framework, UNICEF India, in partnership with central and state governments, as well as with NGOs and other key groups, is implementing initiatives aimed to build a protective environment in which children can live and develop according to their fundamental rights. Translated into action, this approach led to a programme whose main scope is the progressive elimination of all forms of child labour to comply with Article 32 of the CRC ratified by India in December, 1992. UNICEF hopes the World Day against Child Labour (WDACL), which is observed worldwide on or around 12 June each year, serves as a catalyst for the growing worldwide movement against child labour. The Government of India-UNICEF partnership on the issue of child labour is shaped around the following main objectives:

1. Promoting children basic right to education. Core to UNICEF programme, is the emphasis on children’s entitlement, access and retention in education as major strategy to eliminate, but most importantly to prevent child labour. Initiatives include mass enrolment campaigns, support to transitional education programmes (bridge schools), community based sensitization programmes, education quality package for formal education, as well as initiatives aimed to facilitate and strengthen strategic convergence among key institutional stakeholders.

2. Capacity building of marginalized communities towards the elimination of child labour and towards the protection/promotion of child rights. In order to address the vicious circle of poverty as a major factor surrounding child labour, as well as based on a vision of women as key catalysts for change, UNICEF India is supporting the establishment of women self help groups (SHGs) in various project areas of the country. Other initiatives to empower communities towards the protection and promotion of children rights include village planning exercises, the establishing of community level anti-child labour watching committees, as well as the regular sensitization and support to local systems such as the Panchayati Raj (village council) institutions.

3. Advocacy and social mobilization against child labour Addressing existing attitudes towards child labour and facilitate people’s behavioral change towards a more protective environment for children are core components of the present GoI-UNICEF joint child labour intervention. This is addressed in the field through community-centered social mobilization initiatives, implemented in collaboration with local authorities, non-government organizations (NGOs), community-based organizations (CBOs) and by a number of local motivators operating at village level. Building on field level experiences, at central level UNICEF is also developing a National Communication strategy against child labour.

- **Elimination of Child Labour in India – Coordination with ILO**
The International Labour Organization (ILO) launched the International Programme for Elimination of Child Labour (IPEC) in the year 1991 with the objective to end child labour
globally. India was the first country to sign the Memorandum of Understanding (MOU) in the year 1992. During the 11th Plan Period, three Projects viz., INDUS Project, Andhra Pradesh Phase-II and Karnataka Project were implemented in the country under ILO-IPEC. Jointly funded by the Ministry of Labour, Government of India and the Department of Labour, United States of America (USDOL), the INDUS Child Labour Project was implemented in ten hazardous sectors in 21 districts across five states viz. Delhi (NCT Delhi), Maharashtra (Districts of Amravati, Jalna, Aurangabad, Gondia and Mumbai Suburban), Madhya Pradesh (Districts of Damoh, Sagar, Jabalpur, Satna and Katni), Tamil Nadu (Districts of Kanchipuram, Thiruvannamallai, Tiruvallur, Nammakkal and Virudhunagar) and Uttar Pradesh (Districts of Moradabad, Allahabad, Kanpur Nagar, Aligarh and Ferozabad).

- Non-governmental organizations

Several renowned and committed NGOs are working to improve the situation in this field. These NGOs, both local and international, focus on different problems concerning child labour. A great number of NGOs, both local and international, work in the field of child labour in India. Let’s have a look at some of the top NGOs dealing with menace of child labour:

- **Action Aid India**: One area of focus of Action Aid India is education and 'left out' children (including street and working children). The NGO has 12 regional offices (in Bangalore, Bhopal, Bhubaneswar, Kolkata, Chennai, Delhi, Guwahati, Hyderabad, Jaipur, Lucknow, Mumbai and Patna).

- **Butterflies**: Butterflies provides alternative education as well as basic services to street children and working children in the New Delhi area.

- **CARE India**: One of the main areas of activity of CARE in India is girls’ education. The NGO works in 11 Indian states.

- **Child Relief and You (CRY)**: CRY targets underprivileged Indian children, including child workers. The NGO carries out child development initiatives all over India. It is based in Maharashtra.

- **CINI ASHA**: The NGO seeks to improve the quality of life of socially disadvantaged children living in urban areas through education, health and social mobilization. The primary beneficiaries of CINI ASHA programmes are street children, children living in slums and squatter colonies, and children of sex workers. The NGO is based in West Bengal.

- **Concerned for Working Children (CWC)**: CWC works in the field of child labour in Karnataka.

- **CREDA (Centre for Rural Education and Development Action)**: The NGO’s work focuses on child labour related activities. It has undertaken projects for the elimination and rehabilitation of child labour around Varanasi (Uttar Pradesh).
− **Global March Against Child Labour:** The Global March Against Child Labour is a global movement against child labour. It has partners in over 150 countries and is based in New Delhi.

− **Prayas:** Prayas works with destitute, street, and working children. It addresses issues related to lack of sensitivity and infrastructure for their rehabilitation, education, and reintegration. Prayas covers Delhi, Bihar and the earthquake affected areas of Gujarat.

− **Salaam Baalak Trust:** This NGO works with street and working children in and around New Delhi railway station. It provides basic services to the children, including formal and non-formal education.

− **Save the Children (UK) in India:** Save the Children works for the elimination of the worst forms of child labour. Currently, the international NGO runs three projects with working children in Rajasthan, West Bengal, and Jammu and Kashmir.

− **M. Venkatarangaia Foundation:** One of the primary goals of the Foundation is to eliminate child labour by universalising school education. The Foundation mainly works in Andhra Pradesh.

− **World Vision India:** World Vision conducts nine special initiative programmes, targeting in particular street children, bonded child labourers and child victims of sexual exploitation.

We cannot undermine the huge role played by NGOs in handling child labour issues. Specific NGOs focus on certain areas of improvement. For instance, if Action Aid India concentrates on child education and on street and working children then CRY targets underprivileged children who don’t have basic resources to sustain themselves. NGOs are carrying child development activities all over India. Some children educational NGOs engage themselves in offering free education to poor kids. They teach children living in slums.

**CONCLUSION**

Today millions of children work as labourers in various businesses in India. These kids are forced to work to help their poor families, but this robs them of their right to childhood and all its associated joys. Child labour also crushes their right to normal physical and mental development, to education and thus to a healthy, prosperous life. Seven days a week, these children toil as hard as their tender bodies can allow them to, working in inhuman conditions in cramped, dim rooms, breathing toxic fumes, and every now and then being subjected to verbal and physical violence by their employers. These young children work for hours on end, suffering from constant fatigue. The Indian Constitution says that child labour is a wrong practice and standards should be set by law to eliminate it. The Child Labour Act of 1986 implemented by the government of India makes child labour illegal in many regions and sets the minimum age of employment at 14 years. Due to economic factors, many of the law’s goals are difficult to meet. The law, for example, does nothing to protect children who perform domestic or unreported labour. India formulated a National Policy on Child Labour in 1987. This Policy
seeks to adopt a gradual & sequential approach with a focus on rehabilitation of children working in hazardous occupations. It envisioned strict enforcement of Indian laws on child labour combined with development programs to address the root causes of child labour such as poverty. In 1988, this led to the National Child Labour Project (NCLP) initiative. This legal and development initiative continues targeted solely to eliminate child labour in India. Despite these efforts, child labour remains a major challenge for India. The problem of child labour in India is so huge that it demands support and contribution from every part of society to completely eradicate this problem. In recent times, government has taken some concrete steps for improving the situations of child labour. Providing free education, encouraging parents to send their kids to schools with awareness campaigns and allocation of funds towards child health and development etc are some of the steps taken by the govt.

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The Application of Information, Technology and Communication for Supervision of Secondary Schools in Nigeria: An Implication for Quality Control, Assurance and Administrative Efficiency

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ABSTRACT: This paper considers the operationalization of Inspection/Supervision Services of the Ministry of Education, Science and Technology with application of Information Communication and Technology (ICT) tools while undertaking inspection/supervision activities in the Secondary Schools. The use of information communication and technology in teaching, learning and research had changed the nature, processes and outcome of educational services worldwide. The design for the study used questionnaire and direct conversation method of data collection and analyzed with Frequency distribution, Descriptive statistics and Percentages using Statistical Packages for Social Sciences (SPSS). The findings revealed significant correlation between infrastructural facilities, basic knowledge of computer, intention and application. This study also revealed that job security, phobia for technology and dwindling resources of State Government was responsible for non-usage by the Ministry of Education, Science and Technology.

Key words: Technology (ICT), Application, Inspection/Supervision Services, Technology Acceptance Model (TAM) and Nigeria.

INTRODUCTION

It is estimated and statistical assumed judging from the ease of access to information on-line education and cashless policy in banking industry worldwide that seventy-seven percent (77%) of the workforce now use information communication and technology (ICT) in their jobs and the demand for such will continue to increase. Information Communication and Technology implies the collection of improved tools such as computer hardware, software, telecommunication networks, smart chips, workstations (Yekini & Lawal, 2011).

World Bank (2002) asserted that information communication and technology (ICT) holds the opportunity to revolutionize pedagogical methods, expands access to quality education system. An important element of educational industry like the inspection services department of the ministry of education, science and technology cannot but be equipped with 21st century skills (higher order skills). It must be emphasized that the basic foundation on which inspection and
supervision rests upon is information from educational institutions visited. The justification for the States and Federal Government to provide infrastructural facilities in human and non-human resources for an important organization that monitors and control quality of instructions and educational systems to build central data center for processing irrespective of human capacity at the helm of administration.

FME, ETF Project (2005) reported that the usefulness of Computer and other technological tools that information technology and communication has been identified worldwide as a way of improving our knowledge and service delivery. Considering the policy of intra transfer and exit from service or work due to informal and formal reasons by workforce and organizational goals and transformations, one could expect distortion of information or data noting well that higher order skills are possessed by few individual in a workforce, Information Communication and Technology will find and coordinate formal reasoning and level of projection, units of completion and next tasks of completion.

The inspection/supervision agency in the ministry of education, science and technology will provide reliable and qualitative data for planning and provision of educational resources and ensure integration of states and national policy which can be evaluated scientifically, modified and improved.

Computer assisted instruction is the order of the today’s activities most especially in the developed countries. The information technology and communication has changed how people lie, work, study, feels people opinions and perception, respond to policy and program (Kalu&Ekwueme 2003).

**BACKGROUND TO THE STUDY**

The distortion, loss and dearth of statistics of inspection reports, developmental or corrective strategies and nature of identified deficiencies and its rate of frequencies of improper behaviours to address is not available for planning or development. Requiring such information for research studies and analysis is worrisome and unreliable as an organization, state or the country for integrating national development. As important equipment and facilities are unavailable by occupiers of certain positions and responsibilities, so also necessary information or data fundamental to build-up, improvement and reformation/ transformation.

The Globalisation of the society which brings the world closer to our doorposts cannot be ignored if we are to be relevant in the educational and national growth and development. Therefore, we need to be compulsorily information communication and technology literate because an informed person, organization and country should be adequate and efficient in awareness, knowledge and interaction with computer in order to be able to perform basics task of application (Yekini&Lawal (2011).
STATEMENT OF THE PROBLEM

The usage of consultants to collect data or information on the number of secondary school students in the public schools in the state is a wastage of resources and redundancy of the department of schools services to be confirmed by inspectorate services department or record department of Ministry of Education, Science and Technology whose function was solely saddled with that responsibility is an indication of system breakage which application of computer and other allied equipment will address for accountability and quality management and staff management. One pertinent question that needs be asked is that,” is an individual or private organization more qualified and equipped than state ‘organ of workforce’”? This had resulted in falsification of data or information for supplying and payment of fund.

Beside the above reason, is the criticisms of the school inspection services by the education inspectors from the Ministry of Education, Science and Technology for its inadequacy to assist classroom teachers to improve their performance (Tuoyo, 1999). West Burnham (1994) viewed inspection as an external imposition to rejection of teachers as most of the education inspectors behave as small-gods (Ijaiya, 1991). The use of information communication and technology will state expected criteria and expected performance and immediate feedback to adjust for efficiency and development which inspectorate services and staff development ought to do in a scientific and measurable without use of official authority because their orientation and background is authoritative and rigidity to the core.

The need to enhance productivity and minimize wastages has led to a shift from quality control to quality assurance and quality management (Cole, 1996, Bush& Coleman, 2000). For quality assurance in inspection services and administrative efficiency, the following variables such as attitude, interest and application is very crucial for adoption, implementation and successes.

SCOPE OF THE STUDY

The main focus of this study is the comprehensive and application of information communication and technology to operations and procedural activities of the department of inspection services and teacher development of the Ministry of Education, Science and Technology. A better transfer of knowledge, skills, and methodology from one person to another, organization and other stakeholders ultimately rests on reliable information communication and technology (ICT) tools mostly computers and internet facilities.

OBJECTIVES OF THE STUDY

1. To find out the extent of inspection department’s awareness of information regarding secondary schools activities, parentministry, and outside world.
2. For the staff of inspectorate services department to be knowledgeable on computer and other communication tools.

3. To establish application of information communication and technology in daily transaction of inspection/supervision.

4. To institute culture of continuity in educational programme and policy.

5. To identify the relationship of attitude and acceptance of supervision personnel towards application of information communication and technology for achieving quality assurance and administrative efficiency.

Therefore, the author proposes this model adapted from Leena&Luna International to serve as guide in the application of information communication and technology (ICT) to inspection services of secondary schools.

**Figure 1: Leena and Luna International, oyama, Japan copy right@ 2012.**

**RESEARCH QUESTIONS**

1. To what extent can ICT improve inspection/supervision reports?

2. To what extent is the availability of information communication and technology (ICT) facilities in Zonal Ministry of Education, Science and Technology?

3. What is the role of attitude and acceptance of information communication and technology towards achieving quality control, assurance and management as well as administrative efficiency of inspection/supervision of secondary schools?
SIGNIFICANCE OF THE STUDY

1. To provide information/data to educational planners.

2. To give credibility and scientific results to inspection/supervision outcomes.

3. For arriving at meaningful decisions regarding provision of learning materials including computer facilities to school libraries to improve student academic performance in public examination in Nigeria and outside Nigeria.

4. To serve as a road map for other ministries of the State Government and Federal Government to adopt information communication and technology (ICT) tools in inspection and teacher development.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK

The theoretical framework for this paper is scientific management theory and systems theory. In system theory, the attitude and acceptance (inputs) from the education inspectors/supervisors of the Ministry of Education, Science and Technology will determine the realization quality assurance and administration efficiency (output) of department of inspectorate services and teacher development towards improving the quality of education in Ogun State, Nigeria.

2.2 Literature review

A survey of research findings on the usefulness and application of information communication and technology to education and related bodies revealed the followings; The association for education communication and technology in the United State of America(AECT) define educational technologies as complex, integrating processes comprising personnel, procedures/methodologies, devices, ideas and organization for dissecting problems/challenges/difficulties, designing, implementing, evaluating and management/administration of strategic solutions to problems in all aspects of learning and administration.


Christensen (2004) added that information communication and technology (ICT) is the use of hardware, software, services and supporting infrastructures. That information communication and technology is a means of receiving, processing, storing, retrieving and dissemination of information with the use of computer and internet facilities.
Thinking skills are the kind of skills that people need to make decisions (Ennis, 1996). This is the skill for the new century, for workers of the future, changes in the acquisition and delivery of education and evaluation strategy changes which are driven by the development of information communication and technology.


Eggleston et al, (2002) argued that information communication and technology (ICT) make markets more efficient and lower transactions costs by making information more available, accurate and reliable.

Bhatnager (2000) wrote about the importance of sustained to all levels of education including managers, administrators, and inspectors/supervisors. The emphasis as regards this paper should be on education supervisors because of their responsibility in ensuring compliance to curriculum of instruction and hold the map for improvement based on information and reports at their disposal while on visitation and assessment of secondary schools.

Dill Teixeira, (2000) proposed that Government educational policies in information communication and technology (ICT) should be with the intention of stimulating research and spurring innovation.

Castells (1996). The world today is more connected than it ever has been, in our network society; countries have no choice but to learn to use information communication and technology (ICT) in order to interact with other countries in this Globalised age, to examine relationship between technology and society to see how they can benefit from each other.

**METHODOLOGY/RESEARCH DESIGN**

This is a qualitative research design with a population sample of one hundred (100) of education inspectors as participants out of the total population of two hundred education inspector officers in Ogun State. The method of sampling was randomly stratified as twenty five (25) education inspector officers were selected among the four geographical distribution of the state. The author used questionnaires with a format of five(5) point Likert Scale whose reliability is .685 from alpha reliability scale calculated using Statistical Packages for Social Sciences (SPSS 20.0 VERSION) while the validity of the questionnaires was ascertained by Tests and Measurement Experts at one of the state university known as Olabisi Onabanjo University, Ago - Iwoye, Ogun State, Nigeria. Other method of collecting data were direct conversation with two participant each to make total of eight(8) respondents for opinions concerning application of ICT and observation to assess availability of information communication technology (ICT) facilities in their operation.
DATA COLLECTION
A total of one hundred completed questionnaires were collected on the spot and cross-checked that all spaces were responded to and thereafter keyed into Statistical Packages for Social Sciences (SPSS) for scientific analysis.

DATA ANALYSIS, RESULTS AND DISCUSSIONS

1. To what extent can ICT improve inspection/supervision reports?
A frequency distribution of 88% and Mean value of 4.12 agreed in support of usefulness of new approach to operation of their services. All the eight respondents supported introduction and application of ICT if they were trained on the job and provided with tools for usage. This is in agreement with Suleiman, (2012) The incorporation of information communication and technology (ICT) into teaching and learning, education, and stakeholders, education inspectors who are involved in the provision of educational services, monitoring, and ensuring of quality management has been a veritable component of service delivery throughout all areas of education.
In addition to the above support from empirical review is (UNESCO, 2002 & Christensen, 2004) that there should be strategic training of educational workers (education inspectors/supervisors) before commencement of service delivery (inspection/supervision of secondary schools) to give opportunity to learn contents, methods in a positive relationship of guidance and development.
Information communication and technology tools help to accomplish tasks quickly, makes work easier and improves productivity on disseminating information to teachers, school authorities and monitor individual teacher on diagnostics, corrective and developmental strategies in a less tension atmosphere.

2. To what extent is the availability of information communication and technology (ICT) facilities in Zonal Ministry of Education, Science and Technology?

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<tr>
<th>S/N</th>
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<th>FREQUENCY</th>
<th>YES %</th>
<th>NO %</th>
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<td>COMPUTER</td>
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<td>2</td>
<td>INTERNET</td>
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From the above, the number of respondents having contact with computer and internet are very few by the number of “NO PERCENTAGES”. A greater amount of these two information communication and technology were owned personally as only the secretary and head of each zonal ministry has computer for secretarial operation and correspondence while the internet
facility is from mobile sophisticated handset which were configured to access internet materials depending on level of education and exposure and to collate write-up for official presentation during school activities and has been used for personal benefits. This is in agreement to Reeves,(1998) that there is already an evidence that access to technology at home enhances educational achievement. Castells (1996) asserted that the world today is more connected than before in our network society. Countries have no choice but to learn to use information communication and technology (ICT) in order to interact with other countries in this Globalised age and to see how they can benefit from each other. This also in agreement with Avgerou (1990) which says that the idea of information technology can help developing countries is intriguing to many because of the benefits that had been realized in the west or developed countries.

Above all, twenty (20%) of the computers used by the secretaries were in good condition while majority (80%) of them were non-functioning thus resort to the use of obsolete typewriters. This is connected to level of certification of secretaries (below secondary school certificate/primary school leaving certificate) and poor maintenance culture and higher levels of skill required to operate projector and other audio-visual materials. The absence of information communication and technology (ICT) engineers within the premises of education inspectors’ offices was also responsible for non-functioning of office computers as was confirmed during direct conversations and personal observation of ICT tools.

3. What is the role of attitude and acceptance of information communication and technology towards achieving quality control, assurance and management as well as administrative efficiency of inspection/supervision of secondary schools?

The level of attitude for incorporation of information communication (ICT) by the education inspectors was seventy-five percent “YES” (75% YES) and twenty-five percent “NO” (25% NO). This implies that the level of attitudinal change is higher for achieving quality assurance and efficiency required by the society.

This is in agreement with Quibra et al.,(2003) who opined that if a country is to exploit potential opportunities arising from information communication and technology (ICT), they must develop secondary and tertiary institutions for sciences and technologies. Davis (1989) emphasized that user of acceptance of technology within organizational settings possess attitudinal behavior which they believe may increase their job performance which is further modified by Tung & Chang 2007 to explain the meaning of acceptance, the higher the level of attitude, the higher the level of acceptance to use information communication and technology (ICT) tools since attitude has higher correlation value to acceptance.

SUMMARY

The dependence on information communication and technology (ICT) for organizational work like the education inspectors/supervisors and the Ministry of Education, Science and
Technology, and high requirements from users of information collated during inspection/supervision of secondary schools. Any meaningful decisions regarding planning, examination, payment, recruitment, administrative, managerial and operational matters contain elements and nature of information communication and technology. There is a dire need to produce new knowledge workers for the new knowledge economies, says Swartz (2001).

Thinking skills are the kind of skills that people need to make decisions (Ennis, 1996). This is the skills for new century, for workers of the future, changes in the acquisition and delivery of education and evaluation strategy changes which are driven by the development of information communication and technologies.

CONCLUSION

Accessibility and routine usage of information communication and technology improve subject knowledge, develop skills in planning, research and coaching, constant and continuous review of curriculum and improvement in standard of inspection/supervision practices as well as building positive relationship between each other and ultimately improve the quality of life. As the findings revealed positive and high relationship between attitude and acceptance, it is correct to conclude that staff of the department of inspection services of the Ministry of Education, Science and Technology in Ogun State is ready (intention) for application of information communication and technology (ICT) facilities to change the landscape of inspection/supervision in the State and Nigeria as well as Globalised personnel and operation to the world for exchange of ideas and practices for better performances as affirmed by Tung. & Chang, S. 2007.

RECOMMENDATIONS

The followings are put forward for consideration and implementation with a view to have a consolidated scheme and programme in revolutionizing inspection/supervision practices in Ogun State, Nigeria.

1. Improve academic and professional qualifications of education inspectors/ supervisors.
2. It should be mandatory for medium (education officers) and higher (executive officers) ranking staff of inspectorate department to acquire up-to-date knowledge in computer application before moving to higher posts of responsibility to keep it up.
3. There should be institutionalization of computer and information communication and technology (ICT) courses in the training and production of university graduates. This will be addressed by the National Institute of Educational Policy and Administration, Ondo-State, Nigeria in collaboration with National Council of Education in Nigeria and other stakeholders.
4. Large scale provision and usage of computer and internet facilities in the headquarter and zonal ministry of education, science and technology.
5. In-service training and workshop on ICT related fields should be delivered to staff of inspectorate department of ministry of education, science and technology from time to time as new knowledge and information are continually being discovered from time to time for relevance, appropriateness and up-to-date.

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THE EFFECTS OF DIRECT INSTRUCTION FLASHCARDS AND COMPUTER TIME TO TEACH SIGHT WORDS TO AN ELEMENTARY STUDENT WITH A LEARNING DISABILITY AND ADHD: A FAILURE TO DEMONSTRATE A FUNCTIONAL RELATIONSHIP

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Abstract: The purpose of this study was to use Direct Instruction (DI) flashcards to teach high use sight words. The participant was a second grade student with a learning disorder and Attention Deficit Hyperactive Disorder (ADHD). The study was conducted in an elementary resource room in a low-income elementary school located in the Pacific Northwest. The behavior measured was number correct for high frequency words. An ABAB design was employed to evaluate the effectiveness of DI flashcards. The results showed mastery of 137 out of 150 high frequency words over time. In addition, the number of correct sight words increased over time. This outcome was replicated during the return to a second baseline. The lack of a reversal when DI flashcards were withdrawn was discussed.

Key Words: DI flashcards, high frequency words, sight words, resource room, learning disabilities, intellectual disabilities, elementary school student, ADHD

Introduction

Reading can be seen as one of the most vital and important skills that students can learn in school, reading is essential for learning across multiple subject areas to take place. Learning is less likely to occur in social studies, math, or spelling without a solid foundation in reading (Kameenui, 1998). By the end of third grade children are expected to learn academic content through reading (Adams, 1990; I. Liberman & A. Liberman, 1990). If students are unable to read fluently and comprehend what they read, they will have difficulty in all academic areas. More than one-third of children have difficulties with reading (Adams, 1990; I. Liberman & A. Liberman, 1990; S. Shaywitz, Escobar, B. Shaywitz, Fletcher, & Makuch, 1992). Children with inadequate reading skills tend to fall much further behind their peers who are able to build upon existing literacy skills. Research has shown that a students reading ability in the first, third, and fifth grades remains a strong predictor of an individual’s success in later grades (Cunningham & Stanovich, 1997; National Reading Panel, 2000).
Review of Literature

The use direct instruction flashcards has been successful in teaching academic skills to a wide range of students. This has involved students with intellectual disabilities and developmental delays (Cole, McLaughlin, Neyman, & Johnson, 2012; Crowley, McLaughlin, & Kahn, 2013; Green, McLaughlin, Derby, & Lee, 2010; Hayter, Scott, McLaughlin, & Weber, 2007; Ruwe, McLaughlin, Derby, & Johnson, 2011), preschool students with and without disabilities (Chandler, McLaughlin, Derby, & Rinaldi, 2012; Delong, McLaughlin, Neyman, & Wolf, 2013; Fitting, McLaughlin, Derby, & Blecher, 2013; Mangundayo, McLaughlin, Williams, & Toone, 2013), elementary students with learning disabilities (Erbey, McLaughlin, Derby, & Everson, 2011; Glover, McLaughlin, Derby, & Gower, 2010; Kaufman, McLaughlin, Derby, & Waco, 2011; Lund, McLaughlin Derby, & Everson, 2012; McGrath, McLaughlin, Derby, & Bucknell, 2012), students with severe behavior disorders (Brasch, Williams, & McLaughlin, 2008; Pierce, McLaughlin, Neyman, & King, 2012), and general education students (Skarr, Zielinski, Ruwe, Sharp, Williams, & McLaughlin, 2014; Mann et al., 2012; Walker, McLaughlin, & Weber, 2012). Employing DI flashcards involves using a model, lead, and test procedure. Error cards are placed three or four from the top of the stack so they can be reviewed again (McGrath et al., 2012, Skarr, McLaughlin, Derby, Meade, & Williams, 2012; Walker et al., 2012). The two most common subject matter areas where DI flashcards have been implemented have been sight words in reading (Kaufman et al., 2011; McGrath et al., 2012; Ruwe et al., 2011) followed by mathematics (Brasch et al., 2008; Hayter et al., 2007; Mann et al., 2012; Walker et al., 2012).

A learning disability is a neurological disorder; it is a learning disability that results from a difference in the way a brain develops (Heward, 2012; Swanson & Hoskyn, 1998). Children with learning disabilities have normal or above normal intelligence, and no sensory deficits. To qualify for services, these students must have difficulty in areas taught in the common schools. With appropriate support and intervention, a child with a learning disability can succeed academically and be successful in life (Heward, 2012). The important thing for parents and teachers to remember is that children with disabilities need to have their learning catered toward their strengths and that knowledge of their weaknesses will allow for the better understandings of strategies that will be best suited for the child’s learning needs (Heward, 2012). Combining a learning disability with ADHD can present unique issues for the schools (Barkley, 2006). Comorbid LD and ADHD can make classroom instruction very difficult for both student and teacher. Finally, these two issues can present problems for parents in working with the child and his education (Barkley, 2006).

The purpose of this study was to evaluate the effects of a DI flashcard system to increase sight-word reading for a single student with a learning disability and ADHD. The words were chosen from a pretest of 150 high frequency words used in the school district. The words read incorrectly for the pretest were placed on DI flashcards. Another purpose was to determine if the use of DI Flashcards combined with a computer consequence could be effective for teaching a student to with
reading problems to identify high frequency words. The final purpose was to carry out a direct replication of McGrath et al. (2012) with a different student and academic year.

**Methodology**

**Participant and Setting**

There was one participant in this study. Our participant was selected by the first and fifth author because he had shown consistent low accuracy in curriculum based reading assessments, specifically with 2nd grade core words. The student displayed a lack of skills in basic phonics and frequently guesses at words or used pictures to help figure out a word he did not know. He also had significant delays in the areas of adaptive behavior, social skills, cognitive functioning, and communication. He had been diagnosed with ADHD. He had been enrolled in special education since preschool. He received specially designed instruction in the areas of math, reading, and writing due to his learning disability. He was labeled as learning disabled by the interdisciplinary team in his elementary school. The family pediatrician diagnosed the child with ADHD in the first grade. The participant had been into a foster home immediately after birth, then adopted when he was 3.5 years of age. Little was known about his biological mother, though it was known that she did not receive any prenatal care. There was no documented drug or alcohol exposure.

The study took place in the participant’s resource room. He received specially designed instruction 3.5 hours a day. The classroom served 37 children throughout the school day. During the study, typically three to five other students were present in the classroom. The first author worked individually with the student, for 15 minutes, at an empty table away from other students. This was the same classroom employed in the McGrath et al. (2012) study employing DI flashcards and a reading racetrack procedure.

**Materials**

Flashcards, with 50 words were printed in lower-case letters. Two sets of 13 cards and two sets of 12 cards were developed. Four data sheets were developed (one for each set) to record corrects and errors. Also, an additional data sheet for the entire list of 150 words was developed.

**Dependent Variable and Measurement**

A single dependent variable was measured in this study. It was the number of sight words read correctly by our participant. A correct response was defined as the participant saying the word correctly when presented a flashcard containing that particular sight word. He was required to do so within 3s. If the student self-corrected within 3s, it was also scored as a correct word. A “+” was placed next to each word presented on the data sheet(s). These data were also gathered as a pre-and posttest for all of the high use words.

**Experimental Design and Conditions**
A single subject ABAB design (Barlow, Nock, & Hersen, 2008; Kazdin, 2011; McLaughlin, 1983) was used to evaluate the effectiveness of employing DI flashcards and computer time. A description of each condition follows.

**Baseline 1 and 2.** During baseline, typical classroom procedures were in place. The first author went through the deck of DI flashcards with the participant. No instruction or feedback was provided. The first author scored each word on the data sheet by set. The participant was given a reward for participating at the end of each session. Baseline was in effect twice for a total of six sessions.

**DI flashcards 1 and 2.** Four sets of words were created by the first and last authors. The set of words was determined by taking words the participant missed on a pretest of the 150 high frequency words. Two sets of 12, and two sets of 13 words were created from the words missed on the pretest.

At the beginning of each session, the first author went through the flashcards for the current set with the participant. The first author made a pile of correct responses and a stack of errors. For errors, a model, lead, test format was employed, using the flashcards to review the words on the cards that were in error. This included, I say it, we say it, and you say it. If the word was again missed, this procedure was employed until the participant could correctly pronounce the sight word. DI flashcards were in effect twice for a total of nine sessions.

**Reliability of Measurement**

Interobserver agreement was conducted 33% of these sessions. An interobserver independently marked when the student got a word correct or incorrect. The procedures and expectations were clear, if the student did not get the word within 3s or read the word wrong, it was counted as incorrect. Any difference in results was defined as disagreement. The number of agreements divided by agreements plus disagreements and then multiplying the ratio by 100 to get the agreement percentage calculated agreement. The mean agreement score was 100%.

**Findings**

**Total Words**

The number of total words read correctly for the participant during baseline is shown in Figure 1. The mean baseline-1 was 20.6 corrects (range 20 to 21 total sight words). The number of corrects increased during the first DI flashcard condition ($M = 41$; range 39 to 45 total words correct). A replication of baseline resulted in an increase in the number of words correct for all words ($M = 45.3$, range 44 to 46 total words correct).

**Correct Words by Set**
The number correct by set can be in Figure 2. For Set 1 words during baseline-1, the mean was 5.8 (range 5 to 6 words correct). For Set 1 words during first DI flashcard condition, the mean number correct increased to 9.9 with a range of 9 to 10 words. For Set 1 during baseline-2 the mean was 11.3 with a range of 1 to 12 words correct. A return to DI flashcards increased student performance ($M = 13.6$; range 11 to 12 words). For Sets 2, baseline-1 performance ranged from 5 to 6 words correct with a mean of 5.8 words. DI flashcards resulted in an increase to an average of 10.25 correct sight words with a range of 9 to 11 words correct. A replication of baseline (Baseline-2) generated an increase in performance ($M = 11.3$; range 11 to 12 words). A return to DI flashcards resulted in a small decrease in performance ($M = 10.8$; range 9 to 12 words). For Set 3 in baseline 1, the mean number correct was 4.3 with a range of 3 to 5 words. When DI flashcards were in effect, a large increase in student performance was found ($M = 10.25$; range 9 to 12 words). A return to baseline further increased the participant’s performance for Set 3 ($M = 11.3$; range 11 to 12 words). An increase was found when DI flashcards were employed ($M = 12$; range 11 to 13 words). With Set 4 words, baseline-1 produced low performance ($M = 4.6$, range 4 to 6 words correct). When DI flashcards were employed, performance increased ($M = 11.25$; range 10 to 12 words). The return to baseline produced a slight decrease in performance ($M = 11$, range 10 to 12). A replication of DI flashcards resulted in an additional increase in student performance ($M = 12.4$; range 11 to 13 correct sight words).

Pre and Posttest Outcomes

Before intervention, a pretest of 150 high frequency words was given, the participant who was able to read 68.67% correct (103 out of 150 read correct). After intervention the participant was able to read 91.33% correct (137 out of 150 words read correct).

![Figure 1. Number of total correct words for during Baseline and DI flashcards + Extra Computer Time reward.](image-url)
Figure 2. The number correct for each set (Sets 1-4) during baseline and DI flashcards.
Conclusions

In evaluating the effects of a DI flashcard procedure with a computer consequence for high frequency words, after the first baseline, student performance continued to increase regardless of whether DI flashcards or baseline-2 were in effect. Increases between the pre- and posttest also documented a large improvement in student performance.

At first, our participant was clearly unmotivated when being able to be taught using DI flashcards. He looked at it as extra work, on top of all the other work being required of him in the resource room. Even though, the first author and participant had developed a good relationship built prior to formal data collection, the student was still be reluctant to work with the first author. The participant would often respond to the words with errors. He would guess at the word, for example say “either” when the word was “set.” Our participant had phonetic skills but seldom employed those skills when he was unsure of the word.

During DI flashcards, the first author also presented the flashcards as a competition as well as employing extra computer time as a reward. Both the procedures quickly became highly motivating when his number of corrects increased. During DI flashcard procedure, the participant would say things like “I’m going to beat you” or “You’re going down” as a part of the competition, showing his confidence. As his performance improved, the participant became more confident when completing the flashcards. It was clear he became more and more motivated over the course of the study. This was observed in the classroom by both the first, fourth, and last author.

Suggestions and Recommendations

In order for the participant to maintain and generalize the skills taught in the intervention, he was allowed to take home each set of flashcards to practice at home. The procedures during DI flashcard conditions were consistent and he appeared to enjoy these aspects of DI flashcards. Also, since these high frequency words are found in a majority of texts, he was able to master words he would encounter each day. Employing phonemic skills was also encouraged participant to assist him in sounding out words as a way to improve his decoding. These decoding skills are essential to reading (Cunningham & Stanovich, 1997; Kameenui, 1998; National Reading Panel, 2000; Shapiro, 2011).

There were several limitations in the study. During the middle data collection, high stakes state testing began. This greatly changed the daily schedules for our student. Our participant did not attend the resource room for multiple consecutive days. On those days, data collection did not take place. However, the number of words correct during intervention remained consistent when he returned to the resource room after high stakes testing had been completed. Another limitation was during the pretesting, the student became tired and made less effort during the later half of the assessment using the 150 high frequency words. The participant began guessing and therefore
missed many words. Therefore, during baseline-1, it became apparent; that our participant new a number of words that he missed on the pretest. The largest limitation was the clear failure of the participant’s performance to decrease during the return to baseline. This took place for three of our four sets. Employing a multiple baseline design across sets would have been more appropriate. That would have removed the need for a reversal. However, since at four sets received the DI flashcard procedure on the same day, a reversal design was required (Kazdin, 2011). By simply using more sessions of baseline in Sets 2 through 4 would have solved this issue. When we have done this in our prior work (Brasch et al., 2008; Green et al., 2011; Crowley et al., 2013; Kaufman et al., 2012; Mangundayo et al., 2013; McGrath et al., 2012), a functional relationship was found. However, we have found differential effects when we have employed DI flashcards with very young students (Chandler, McLaughlin, Neyman, & Ehlers, McLaughlin, Derby, & Rinaldi, 2012, Higgins, McLaughlin, Derby, & Long, 2012), but not with older elementary or secondary students. However, the failure of the skill to reverse warrants some caution, even though one could make the case that our participant had maintained his skill to the point that DI flashcards were no longer needed. Also, the effects of allowing DI flashcards to be taken home by our participant require further analysis. We have found that students will employ an effective procedure at home even when they are instructed to do so (Malone & McLaughlin, 1997). Finally, since DI flashcards were paired with access to classroom computer time, we do not know about the separate effects of DI flashcards or the use of a computer-time reward. Subjectively we felt that the use of computer time improved our participant’s willingness to complete his work using DI flashcards.

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ATTAINMENT OF UNIVERSAL BASIC EDUCATION IN NIGERIA
A MYTH OR REALITY

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Abstract: Education is believed to be an instrument of national development. The realization of this fact is responsible for many countries embarking on one form of educational program or the other. The Nigerian educational system has metamorphosed from the 6-5-2-3 to the 6-3-3-4 system. As laudable as the objectives of the 6-3-3-4 system were, they were not fully attained. In recent times, the nomenclature of our educational system has changed to Universal Basic Education (UBE). This study examined a chronicle of the development of the various educational programs, highlighting the fact that they failed and stressing the fact that if the problems of proper implementation are not addressed, the education system will continue to move in the same circle. It proffers solutions to the teething problems of failure in policy implementation.

Introduction:

Education is believed to be an instrument of national development. The extent to which a nation can develop depends to a large extent on the level of education of the individuals that make up the nation. Education is capable of bringing about physical, spiritual, social, psychological and economic development in an individual and thus, the society. This is why most nations of the world invest greatly in education.

The investment made in education is often tailored to a country’s educational goals. This is attested to by the National Policy on Education (2004), which is hinged on the belief that:

a. Education is an instrument for national development: to this end, the formulation of ideas, their integration for national development and the interaction of persons and ideas are all aspects of education;

b. Education fosters the worth and development of the individual for each individual’s sake, and for the general development of the society.

c. There is need for equality of educational opportunities to all Nigerian children irrespective of any real or imagined disabilities of each according to his or her ability…

To achieve equality education, especially at the foundation level, priority attention has been given to primary education all over the world. Oni in Fredrick (2013) notes that the emphasis placed on primary education is based on the fact that all the beneficiaries of the other levels of
education by necessity have to pass through the primary level. Besides, exposing the citizens of a nation to foundational education is instituting literacy as well as numeracy. That is why the government of most nations including Nigeria, have for decades embarked on one educational programme or the other; sometimes, without much success.

The objective of this study therefore, is to follow the trend of the development of various educational programmes in Nigeria as to ascertain why the objectives of the programmes were not attained and to proffer suggestions for the attainment of future educational objectives.

The Developments in the Nigerian Education System

The need for equal educational opportunities for all has ushered in various forms of Universal Education. According to Labo-Popoola, Bello, and Atanda (2009), the concept of universalization of education, especially at the primary level, commenced in 1955 in the then Western Region of Nigeria, and later spread to all other parts of the country when the Federal Government took over the concerns of education to ensure that every Nigerian child benefitted, irrespective of his regional location.

The government introduced the 6-5-2-4 system of education where every Nigerian child of school age was to spend six years in primary school, five years in secondary school, two years in higher school (HSC) and four years in a university. This education system was abandoned with the criticism that it was ‘bookish’ and inadequate to fulfill the aspirations of the nation. It was replaced with the 6-3-3-4 system in 1976. This educational programme made provision for six years of primary education, three years Junior Secondary education and three years Senior Secondary education. Tertiary education was to take four years.

The curriculum of the aforementioned was well spelt out and quite comprehensive. It had a lot of prospects and appeared to ensure the use of brain and hand (Olaiya, 1988:12). The system was meant to transit its products to the world of work if need be at the Junior Secondary level.

Fafunwa (1974) and Babalola (1996) posit that as laudable as the objectives were, the programme lacked proper planning, leading to inadequate facilities in classroom, insufficient trained teachers and erosion in the provision of quality education. There were also no infrastructure to house the teeming population of pupils.

During the regional era, the Western Region sorely embarked on universal education and succeeded. According to Fredrick (2013), they succeeded because they trained teachers to meet the demands of the programme. They also made provision to accommodate the increase in enrolment. This made other Regions to also embark on universal education. The Eastern Region
did not succeed in its attempt to introduce universal education because it did not imitate the Western Region in its meticulous planning and implementation.

In the same vein, the Federal Government took over the issue of universalization of primary education without proper planning. They rushed in to take over as it were, but could not sustain the ‘tempo’. Babalola (1996) observes that no sooner than they took over, their proportion of capital and recurrent allocation on education fell from 21% to 13%, and total capital allocation fell from 7% to 4%. This was collaborated by the World Bank report of 1990, which stated that the financing of primary education in Nigeria was progressively declining.

The failure of the Federal Government to allocate enough resources to education led to inadequate supply of human and material resources such as overcrowded classroom, inability to maintain existing facilities as well as poor supervising plan. The teacher-pupil ratio that was stipulated in the NPE as 1:40 grew to 1:80 or more.

The 6-3-3-4 programme lasted for more than two decades but the research conducted by Amakiri (2005) revealed that the implementation of the transition from Junior Secondary to Senior Secondary was faulty. The records from some of the schools, especially the Baptist High School showed that from 2001 to 2004, 1,288 students graduated from Junior Secondary School. Out of this number, 53 students failed the Junior West African School Certificate Examination. There were, however, no records to show that those who failed were streamed into Senior Secondary, Technical Colleges, Out-of-School Vocational training centres or apprenticeship scheme as stipulated in section 4 sub section 22’b’ of the National policy on Education. This trend ran through out Rivers State and beyond.

It is obvious that the Federal Government favoured education but the withdrawal of its direct subsidy for primary education no sooner than they took over, and transferring the responsibility to the Local Government, practically brought the UPE programme to an end in most parts of the country. This was because most of the states introduced fees and levies at all levels of education; thus, depriving many school age children from going to school.

Amanze (2008) notes that the denial of children of school age the basic right of education was so rampant all over the world that a conference on Education for all was held in Jomtien, Thailand, for the purpose of forging a global consensus and commitment to provide basic education for all.

**THE UNIVERSAL BASIC EDUCATION PROGRAMME**

Today, the nomenclature of the educational system in Nigeria, has changed to Universal Basic Education (UBE). According to Dike (2000), this programme of UBE grew out of the conference
in Thailand. In line with the deliberations in the Thailand Conference, the then President of Nigeria, Olusegun Obasanjo launched the UBE programme in 1999. The programme is expected to be universal, free and compulsory. In fact, the UBE appears to be much more inclusive than the UPE. It emphasizes the inclusion of girls and women, who were before now, relegated to the background. The poor, street and working children, rural and remote population, nomads, migrant workers children, refugees and the disabled are all inclusive.

The Universal Basic Education programme is structured in a way that every Nigerian child would have an average of nine (9) years basic education from Primary to Junior Secondary, three (3) years of Senior Secondary education and four (4) years of tertiary education. The programme was designed in conformity with the Millennium Development Goal (MDG). To ensure the attainment of the goals, and objectives of the UBE, the compulsory, free Universal Basic Education Act was promulgated.

The Basic Education Act.

Part 1 subsection 2 of the Act states thus:

2. Right of a child to compulsory, free universal basic education etc.
   (i) Every Government in Nigeria shall provide free, compulsory and universal basic education for every child of primary and junior secondary school age.
   (ii) Every parent shall ensure that his child or ward attends and completes his
       (a) Primary education; and
       (b) Junior Secondary School education, and by endeavouring to send the child to primary and Junior Secondary Schools.

3. Stake holders in education in a Local Government Area shall ensure that every parent or person who has the care and custody of a child performs the duty imposed on him under section 2 (2) of this Act.

4. A parent who contravenes section 2 (2) of this Act commits an offence and is liable.
   (a) On first conviction, to be reprimanded.
   (b) On second conviction, to a fine of ₦2,000.00 or imprisonment for a term of one month or both, and
   (c) On subsequent conviction, to a fine of ₦5,000.00 or imprisonment or to both.

3. Services in public primary and junior secondary schools are free of charge.
   1. The services provided in public primary and junior secondary schools shall be free of charge.
   2. A person who receive s or obtains any fee, contrary to the provision of sub section (1) of this section commits an offence and is liable on conviction to a fine not exceeding ₦10,000.00 or imprisonment for a term of three months or to both.
The penalties spelt out in section 1 sub section 4(a) (b) and (c) and sub section 3 (1) and (2) for failure of parents to send their children to school, and for educational administrators, who collect any fee from the pupils are laudable. However, failure of the Act to spell out penalties for any government or stake holders in education who fail in their responsibility tend to make the Act factitious. The implication is that the governments who are the custodian of the Act are sacrosanct.

A careful observation reveals that the U.B.E programme has kicked off in earnest but the streets are still littered with children of all ages hawking or begging for alms. At the rural areas, migrant fisher men are moving from shore to shore with their entire family. What has the government done to ensure that that children of migrant fisher men attend school?. Are there schools at the fishing settlements? These are hard facts the government must address if they are sincere.

The truth is that in most urban areas, the government is building schools, but the number available is not enough. This is because other facilities that would have been utilized have been handed over to churches in the name of missionary schools. The qualities of teachers in those missionary schools also call for concern because some of the teachers there are not professional teachers and so, may not be competent in terms of methodology. They may also not be committed because they would want to leave the school system immediately they find greener pastures. The situation is not different, in the rural areas.

It is a known fact that the rural areas are hardly developed. Consequently, teachers who are posted there do so, as a form of sacrifice. The government as a matter of concern should have given them special packages as incentives to motivate them to go there. This, the government have not done and so there is dearth of teachers in the rural areas.

The fire brigade’ approach to handling sensitive matters like education is almost being replicated by the present government. Recently, some state governments embarked on recruitment of teachers. One wonders the statistics that was used in recruiting the teachers. Is the number of recruits commensurate with the population of intakes in the school system? What about their qualifications?

The newly recruited teachers were given some form of orientation. However, this study believes that orientation is not enough if we must get the best out of them, especially from those of them that did not study education in tertiary institution.

With this scenario of events, the attainment of the UBE objectives is very slight.

The way forward

If Nigeria would attain the goals and objectives of the Universal Basic Education, it must address the challenges presented by short term plans that have often stalled effective
implementation of policies in the country. Also, the principal step is to fully implement the items on the UBE Act. That is to say, the government of the day should be held liable for any failure on its part to implement its portion of the Act. It is only then, it will be morally right for them to punish parents and educational administrators who contravene sections of the Act.

Furthermore, the government should not lose sight of the fact that many parents especially parents in the rural areas are uneducated; therefore, efforts should be made to properly educate them about the scheme and its benefits. This should be accompanied by an enforcement of the Act. Any parent who contravenes the law should be prosecuted. There should be no room for nepotism or tribalism which is becoming the norm in Nigeria. It has been observed that the fraternization of important policy issues impinges on the proper implementation of such policies. Consequently, educational policies such as the UBE should not be sacrificed on the alter of nepotism.

Another vital issue that the government should address is the area of funding. Adequate fund should be allocated to the education sector. To ensure that funds are not embezzled, credible persons should be made to control the disbursement of funds. In addition, a monitoring team should be set up to oversee the activities of those who disburse funds and those who utilize the funds. This will make room for proper checks and balances.

Government should embark on a long term plan to train teachers. This will reduce over crowdedness in our classrooms as the teacher – pupil ratio of 1: 35 for primary and 1:40 for secondary schools can then be achieved. Government should set up committees to monitor the activities of teachers in the various schools. To achieve this, pupils and students books should be inspected fortnightly. Reports of such inspection should be given to the commissioner in charge of education who should act on it without prejudice.

Reading and writing are key to the attainment of universal education. Consequently, libraries should be provided in all the schools. Such libraries should be equipped with adequate and appropriate books.

CONCLUSION

The study examined the development of the various educational programmes in Nigeria vis-à-vis the National Policy on Education and the Compulsory, Free Basic Education Act. One big challenge facing the attainment of the UBE educational programme is the fact that Penalties were stated for parents and educational administrators who contravene section 2, subsection (2) and 3, but no penalty was stated for the contravention of section 2 subsection (1). Failure to give a penalty for the contravention of the Act by the government of the day makes the government sacrosanct and the Act factitious. Other challenges identified by the study are lack of proper planning, inadequate facilities and funds. The study therefore suggests that the implementation of
the UBE Act should be enforced and education should be given priority attention if the goals and objectives of the Nigerian education system would be attained.

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LEADING SUCCESSFUL SCHOOL IMPROVEMENT: WHAT TEACHERS TELL US

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Abstract: Educational leadership and schools feel perpetual expectations for improved student learning and ingenuity in satisfying increasingly diverse student needs. This study probed beneath the broad factors of principal leadership, vision, and collaboration to reveal specific tipping points that make school improvement possible. The purpose of this study was to analyse teacher perceptions for what specific factors create successful school improvement projects (SIPs). Twenty-three successful school growth experiences were analysed. Clarity of information, and teacher voice were dominant features, but each successful project had a unique ingredient that required attention.

Keywords: school improvement, educational leadership, principal leadership, communication, teacher voice, student voice

Introduction
Schools have always been expected to develop successful students and capable learners, whether for the Industrial Age, or for the complex and fast-paced society of today. School improvement has been extensively researched and better student performance is an ongoing goal for researchers, districts, schools, and parents. Accountability for this expectation is built into the No Child Left Behind order in the USA and Provincial Ministerial Orders in Canada. Thus, jurisdictional obligations, and more importantly, professional motivation and mission propel educators to search for deeper insights, approaches and strategies for educational improvement.

Senior managers develop detailed achievement plans and school leaders cultivate school improvement plans (SIPs) to grow student performance. Teachers are desired for their participation and to be motivated to support and enact these plans. With the overall goal to improve student performance and well-being, what are the specific resources, strategies, actions, and personnel that teachers say are necessary for this to occur?

Assessments get made; plans generated. Goals get set; data analyzed. School improvement plans are multifaceted and dependence on any one aspect or person is not reasonable. One consistency in the research is that teachers listen to teachers. Teacher knowledge, influence, and affirmations change practice and improve schools (Loeb, Elfers & Plecki, 2010; Louis, Dretzke & Wahlstrom, 2010; Marzano, 2003; Sergiovanni, 2009; Williams, 2009). The intent of this study is to listen to teachers, learn from them, and attend to the matters necessary for successful school improvement.
Research demonstrates that successful school improvement requires a collaborative vision, good staff relations and dispersed leadership with teachers engaged (Christophersen, Elstad & Turmo, 2012; Fullan, 2010; Supovitz, Sirinides & May, 2010; Williams, 2009). Specific and flexible planning and effective principals are also consistently identified (Loeb et al., 2010; Louis et al., 2010; Marzano, 2003; Schmoker, 2011; Sergiovanni, 2009). As an experienced school-based and district leader, the investigator has lived a number of successful school improvement scenarios. Personal experience indicates that the following cornerstones need to be in place to generate positive school growth: (a) a broadly developed, collaborative school vision; (b) utilizing and developing teacher leadership; (c) monitoring of agreed-upon actions; (d) passion and encouragement; and (e) results feedback. This acquired praxis aligns with previous findings.

Are these factors that are found in the research and in lived experience also what teachers feel and believe? Fullan (2010) emphasizes the need to respect teacher voice and Malcolm Gladwell succinctly states that “you realize that an awful lot of seemingly complicated questions about education could be resolved simply by asking teachers... they’re the ones doing the teaching, dealing with the kids, who live this stuff. Just ask them” (Bethune, 2013, p.15). The purpose of this study was to analyze teacher perceptions for what specific factors generate successful school improvement projects?

**Methodology**

This investigation took place in fall, 2011, in the cities of Vancouver, British Columbia, and Calgary, Alberta. Twenty-three teachers in a Leadership and Administration program were administered an open-ended written survey to complete independently. Individual teachers, 13 female and 10 male, were asked to reflect upon and analyse a successful SIP that they lived. Twenty-three different SIPs were analysed, from a teacher perspective. These had occurred in 8 elementary schools and 15 secondary schools.

Each school-based SIP was distinct to the individual teacher, and was considered to be successful in his/her opinion. To gather data an open-ended survey requested information in the areas of (a) context and purpose, (b) strategies and resources used, (c) evidence of change, and (d) significant actions and turning points. The purpose of this study was to learn from teachers what conditions were necessary for school improvement. Particular to the needs of this study, the questions regarding specific actions and turning points were (a) What situation or person instigated the change? (b) What were the key moments or actions that precipitated success? (c) What action got people agreeing to the change? and (d) What were the important factors that had to be attended to? When completed, the surveys developed into 2-4 pages of data for each SIP. The data was analysed using concept occurrence, tabulated under the question headings, type of project, and school level.
Findings
The SIPs were categorized into four types, these being (a) curriculum, (b) technology, (c) student climate, and (d) staff relations. Student climate encompassed social and behavioural aspects of student life, such as discipline, attendance, and respect. Staff relations involved issues of communication, collaboration, and morale. The data was assessed for which strategies and actions, and personnel were instrumental in making the school change successful. Eighteen of the SIPs analysed were school-wide projects and five were department-based.

What situation or person instigated the change?
The formal leaders were most instrumental in initiating the school improvement projects, followed by staff discussions, and teacher-leaders. Figure 1 illustrates that from the 26 comments in this area, 12 identified the principal or assistant principal (9 and 3 respectively) as the person instigating the change. Four of the projects were generated from staff discussions and three were initiated from individual teachers. Of the 23 SIPs only two of the successful endeavours were initiated by district office.

![Figure 1: Instigating the improvement plan](image)

What were the key moments or actions that precipitated success?
The data concerning key actions was exceptionally diverse. Twenty-seven responses came forth regarding what moment or action was vital for ensuring the success of the SIP. Twenty-six of these statements were different from one another, each project appearing to have a unique circumstance that was pivotal for creating the successful situation. Samplings of the precipitators for success were such areas as (a) student voice, (b) new personnel, (c) organizational changes, (d) vision development, (e) student performance, and (f) agency meetings.

What action got people agreeing to the change?
Four areas emerged that were deemed to get people on side for the successful school changes. The most prominent action for galvanizing people to the cause was teacher voice, receiving 8 of the 36 responses for this area. Teachers being listened to, teacher modelling, and teacher validations of the initiative were examples given of teacher voice. Subsequent to teacher voice, Figure 3 shows that three areas were found to be equally important in fostering the success, each...
receiving four responses, these being (a) the project being worthy, (b) student voice, and (c) the principal.

Figure: 2

Getting to agreement

What were the important factors that had to be attended to?
The most important factor that needed attention for successful school change was communication. Clarity and accuracy of information, and staff collaboration produced 15 of the 51 responses, as displayed in Figure 3. Subsequent to effective communication, monitoring and follow-up on actions to be taken, and teacher training were prominent receiving 7 and 5 responses respectfully.

Figure: 3

Issues requiring attention for success

Discussion
School improvement can be a complex enterprise in some environments. Effective leadership creates collaborative culture for growth. Research indicates that a shared vision, teacher participation, and effective leadership are influential for successful school change. To further reveal the finer particulars of managing school change successfully a group of candidates in a graduate leadership program were asked for their perceptions as to what made SIPs successful.
The majority of successful SIPs were instigated by an administrator, 12 of the 23 overall. The importance of an effective leader is a replication of much previous research findings. Staff discussions and teacher leaders combined for creating seven of the school change proposals that were investigated. Only 2 of the 23 successful SIPs were mandated by central office.

Leaders may initiate, but the continuation of the project revolved around staff affirmations and the worthiness of the endeavour. Found equally influential to the worthiness of the project was the impact of affirming student voice, by means of student leadership groups or through student discussions. In this study the importance of student voice was present in the social/behavioural SIPs, but not in the curriculum related ones. Student voice was not identified as an initiator for change in the 23 SIPs investigated, but four comments surfaced recognizing its importance for driving the school to agreement on the SIP. Mitra (2008) “identified important benefits of student voice initiatives . . . including to help improve teaching, curriculum and teacher-student relationships” (p.2). The presence of student voice as an important consideration in school improvement presents an interesting and potentially powerful dimension of school reform for a leader to be cognizant of, and to concentrate on.

What needed to be attended to throughout the process was thought-provoking. The importance of monitoring actions and follow-through of strategies were strongly present, having the second highest incidence of occurrence with seven. These areas have also been advocated and expected based on previous research and the experience of the investigator. Superseding these factors however, was the subject of staff communication, receiving the highest incidence of occurrence with 15.

Teachers stated that communication was the most important factor to attend to when generating a successful SIP. Aligning with past research, having time to discuss and collaborate with fellow staff was dominant in the data (Fullan, 2010; Sergiovanni, 2009). Coupled with this, the data revealed the need for all information, data, and directions provided to be accurate and clearly stated. The need to have specific research information to support the initiative did not arise once.

The importance of principal participation was also not evident in any of the data. Principal participation with teachers on instructional practice has been identified as a powerful effect on student learning (Fullan, 2010; May & Supovitz, 2011) and yet principal influence on instructional practice has also been thought to be minimal (Schmoker, 2006). This is an area requiring further inquiry and refinement.

Money was not found to be a significant factor for school growth initiatives. Only 2 of the 23 projects cited financial resources as something that needed to be attended to. Even with ten of the SIPs distributed over curriculum and technology issues, financial resources were not a prominent element shaping success. The insignificance of money and the importance of follow-through for successful school growth aligned with the experience of the investigator.

The foci that teachers deemed influential, and the diminished importance of financial resources, may be related to that the positive school growth that teachers had experienced did not centre on things or resources, but predominantly on human dimensions of school culture. Of the 23
successful SIPs examined, 13 were either in the student social/behavioural or school culture realms (8 and 5 respectively). The remaining ten SIPs involved curriculum development (8) and technology (2), comparably distributed between both the elementary and secondary levels. The projects focusing on school culture concerned staff morale and relationships. Seven of the eight student climate projects were at the secondary level. The prevalence of successful plans in these affective domains is assuring. Difficult personnel and student environments can be positively addressed when the necessary factors are attended to.

The key moments and actions that precipitated successful reforms was the most diverse response area, with each SIP having its own unique turning point. Further examples to those identified in the Results, were (a) having a successful initiation, (b) student accountability, (c) staff vote and ownership, (d) staff vulnerability, and (e) administrative directive. The existence of a particular and significant turning point, which is exclusive to each SIP, is of interest to leaders. Effective leaders may be attuned to, and have the critical leadership, management, and cultural dimensions in place for school improvement to occur. Nonetheless, each SIP appears to emit a particular elucidation, unique unto itself that is the tipping point for success. Leaders need to have the “educational connoisseurship” (Eisner, 2002) with the capacity to observe, identify, and then manage that key moment.

This study has revealed the dynamics of a successful SIP through the voices of teachers. For further study greater specificity of questioning, broader evidence collection and sample size, principal perceptions, and focus groups would assist in evolving this discourse further. The impact of student voice and principal participation on school growth and student learning are topics compelling further examination.

Conclusions
The intention of this study was to use teacher perceptions to reveal the factors that are pivotal for ensuring school improvement. The data demonstrated that instigation of a school improvement plan predominantly originates from administration, but teachers ensure its success. Few successful SIPs came from central office. Financial resources, research information, and principal participation did not emerge as being significant.

Once proposed, agreement on a school’s direction required (a) teacher affirmation, (b) the project being worthy, and (c) student voice. To maintain the initiative the most influential driver was to have clear information regarding purpose, directions, and actions to be taken. Following these, staff collaboration and monitoring were next in importance. Each plan demonstrated an exclusive component, specific to itself, which needed to be attended to for ensuring the SIP’s success. Each successful SIP may ultimately rest upon a leader’s capacity to be attuned to, and be able to act upon that specific moment or action within the dynamic school change milieu.

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Reducing Time Spent in a Classroom Bathroom with Preschool Student with Autism: Effects of Timing and Consequences

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Abstract: The purpose of the case study was to examine the efficacy of timing and contingent adult attention to teach a 6-year-old preschool student with autism toileting skills. Data were gathered on the length of time required for our participant to either self-toilet or request that he did not need to use the classroom toilet per session. The intervention included providing adult attention contingent spending less time on the toilet based on a changing criteria. Our results indicated a decrease in the time to toilet that was near or below his criterion. A brief return to baseline produced an increase in the time required to toilet. The replication of timing and consequences resulted in a decrease in the time required to complete a toilet visit. The implementation and evaluation of these procedures in a classroom setting were discussed.

Keywords: autism; preschool child, toilet training, self help skills, changing criterion and reversal single case design, classroom research, data-based decision making

The importance of acquiring self-help skills remains an important goal in preschool instruction and a developmental milestone (Hall, 2009; Howard, Williams, & Lepper, 2009). According to Wheeler (2007), the wetting and soiling of clothes results in a large amount of time, energy, and resources being devoted to an individual’s personal care needs. The amount of time spent in the bathroom results in time missed in the classroom, and in the end, may have a negative effect of the child’s education. This is why it is very important for young children to learn to use the restroom.
Toilet training can often become problematic because the child does not emit enough toileting behaviors (Mahoney, Van Wagenen, & Meyerson, 1971). To further complicate toileting, a teacher or other caregiver may not easily be able to set the occasion for a child to empty their bladder (Honig, 1993). The toileting programs developed by Azrin and Foxx (1971, 1974) have been widely implemented in both home and school settings. Their procedures are robust and effective, and modified within several replication studies (Chung, 2007). To increase the likelihood of urination, the Azrin and Foxx procedure includes scheduled periods of sitting on the toilet. They also recommended increased fluid intake to increase the likelihood of urinating during toileting sessions. Azrin and Foxx (1971) hypothesized that toilet training also needed to be conducted on a daily basis until the child was 100% successful. Their method often requires a great deal of time, and supervision to be effective. These factors might make it somewhat impractical treatment implemented in naturalistic settings such as preschool classroom. To reduce the manpower problem, we implemented two components of their program; access to a toilet in the classroom at specific times and the use of consequences for leaving the bathroom in less time. Finally, to reduce the amount of time needed for toileting, we employed a timed criterion for time spent in the classroom bathroom.

Research on toileting in the classroom supports the need for continued research. Sells-Love, Rinaldi, and McLaughlin, (2002) employed increased intake of liquids and using the toilet at specific times. They and were able to reduce the frequency of inappropriate urination in a classroom setting. Recently, Chung (2007) reported that employing a modified version of rapid toileting (Foxx & Azrin, 1974) with a 12-year-old student with developmental disabilities. Chung, like Sells-Love et al. were able to teach toileting in a classroom setting. McManus, Derby, and McLaughlin, (2003) utilized the Foxx and Azrin procedure with a young child with Fragile X. In their case report, the child would not consume the fluids necessary to establish the need to urinate. Thus, McManus et al. employed rewards in the form of high sodium food (pepperoni) to increase the child’s requests for water.

A common trait with children with autism is having issues in the area of adaptive skills. With this often times come difficulties in toileting (Wheeler, 2007). According to Dalrymple and Ruble (1996) there may be a wide variety of reasons for this difficulty. These may include such issues as constipation, avoidance of bathrooms, toilet fears, painful defecation, attention deficits, psychological stresses, medical interventions, and possibly diet. It is important that children with autism are exposed to toileting early. It takes much exposure to toileting for the child to become comfortable with toileting. Because children with autism learn well with schedules and routines, this can be used to help a child to learn to properly use the bathroom (Wheeler, 2007). It is important in children with autism to understand their different needs and to use that knowledge in toilet training.
The purpose of this study was to decrease the time spent in the bathroom by a preschool student with autism. An additional goal was to have the student complete all the steps required when using in the toilet in his preschool classroom. We viewed this as a very important self-help for him to transition to a general education kindergarten setting the following school year. If a child is not trained in how to properly use the restroom and requires a great deal of time, he/she will miss out on school, therefore missing out on very crucial information that is taught. This can cause great disadvantages to the child, and affect their educational opportunities. It would also be very difficult for a child without proper toileting skills to be successful in a general education kindergarten classroom setting.

Method
Participant and Setting

“John was a six-year-old boy enrolled in an all day preschool in a large urban school district in the Pacific Northwest. He was diagnosed with autism spectrum disorder (ASD) by a licensed clinical psychologist at age 3. John received services in speech, occupational therapy, and physical therapy over the duration of the investigation. John’s classroom teacher felt that the main areas of concern for the student were social skills, behaviors, and some adaptive skills. According to the classroom teacher, a goal for John was to be placed in an integrated-kindergarten the following school year.

Along with the lack of certain adaptive skills, John had not yet mastered toileting. John was still in pull-ups, and was not fully toileted. It was reported by the teacher that the subject would spend long periods of time in the bathroom. This included the amount of time the student would use the toilet and change his pull-up if it was wet or soiled. The teacher believed that it would be appropriate to try to decrease the amount of time that the subject took to use the bathroom. This would allow him be successful in the integrated kindergarten and have more time to be involved in the classroom activities.

The study took place in the preschool bathroom. The child attended preschool Monday through Thursday from 9:00 a.m. to 3:00 p.m. The preschool was an inclusion program for students with special needs ranging in age from 3 through 6 years. In the morning, there were eight students in the classroom. In the afternoon there were seven students. One lead teacher, a student teacher and three classroom aides staffed the classroom. In addition, there were at least two practicum students from a local university in the classroom through out the day.

The sessions took place within the bathroom in the preschool classroom. The bathroom was located in the back corner of the classroom. Typically John would use the toilet located at the back of the bathroom, and then use a stool to sit on and change himself. The first author would stand by the entrance of the bathroom. John was required to use the bathroom twice a
day. Sessions were conducted daily in the morning before he went outside for recess and in the afternoon before he finished his snack time.

Materials

There were various materials that were used for investigation. First, a hand-held timer was needed to determine the amount of time in the bathroom in the classroom. A stool and paper towel was needed for when the subject sat to change his pull-up. When the intervention was implemented, a large kitchen timer that allowed the subject to see the amount of time remaining to receive his reward was used. The timer also had an alarm on it that would beep to indicate when the student was out of time. John’s family provided pull-ups. There were also a variety of games that required adult interaction used when reinforcing appropriate use of the bathroom.

Dependent Variable and Measurement

The behavior that was measured was the amount of time required for John to either use the toilet or go through the steps of using the bathroom if he did not have to use the restroom. The timer began when John entered the bathroom and ended when John placed the paper towel from washing his hands in the wastebasket. These data were gathered by employing a stopwatch. Once John entered the bathroom, the first author started the timer to measure the amount of time the individual spent in the bathroom. John would go through the motions of changing himself, beginning with taking his shoes, pants, and pull-up off. He would then attempt to go to the bathroom in the toilet. After John had finished using the toilet, he would place a paper towel that had been provided to him by an adult on a stool and sit down on it. He would then finish changing himself by putting on a clean pull-up, putting his pants back on, and tying his shoes. John would finish using the bathroom by washing his hands. The first author would stop the timer when the student placed the paper towel from drying his hands in the wastebasket. The number of minutes and seconds were converted to minutes. For example, 9 minutes 30 seconds would be recorded and graphed as 9.5 minutes.

Experimental Design and Conditions

The design that was used was combination changing criterion and reversal design (Barlow, Nock, & Hersen, 2008, Kazdin, 2010). The reversal was implemented to evaluate the effectiveness of timings and rewards on the amount of time in minutes John spent using the bathroom. A description of the various conditions follows.

Baseline. Baseline was conducted under normal classroom circumstances. John entered the bathroom after either the teacher or an instructional aide verbally prompted him that it was time to use the bathroom. During baseline, the adults in the classroom provided no prompting.
during the toileting routine. Other than the prompt it was to go to the bathroom, no other prompts were provided. The first author remained outside the bathroom door and timed him. The location of the first author made it impossible for John to see or interact with the first author. The only time that the classroom adults would interact with John during baseline was when he needed help wiping himself. After the first author helped him wipe, she quickly left to stand back outside the bathroom. Baseline was in effect for three school days.

**Timing and rewards.** For the timings, an additional clock was added that allowed John to observe the time remaining for his bathroom session. His most preferred reinforcer item was to interact with one of the adults in the classroom. This had been determined by employing a paired-preference assessment (Fisher, Piazza, Bowman, Hagopian, Owens, & Slevin, 1992). It was hypothesized that he would work very hard to try and beat the timer to earn his goal to obtain adult attention. We employed various criterion ceilings. We began with 9 minutes and over the duration of the case report was reduced to 5 minutes. This phase was implemented five times for a total of 14 sessions.

**Baseline 2.** We carried out a return to baseline to determine if there was a functional relationship between timing and access to adult attention. Due teacher concerns, this condition lasted for one session.

**Interobserver Agreement and Fidelity of the Independent Variable**

Interobserver agreement was conducted once during baseline and six times during the intervention, timings with rewards sessions. John was given the prompt “go to the bathroom”. When John entered the bathroom, the researcher would start the timer. During baseline, the researcher stood outside the bathroom with the timer, and waited for John to finish. When the researcher observed that John had finished washing his hands and thrown away the paper towel used to dry his hands the timer was stopped. This same procedure was used during intervention; however the researcher stood inside the bathroom. The amount of time that John took to use the bathroom was then recorded on the data sheet.

During interobserver agreement sessions, the first author would bring the stopped timer to the classroom lead teacher to show her the time. The classroom teacher would then put her initials next to the time if it matched the time she saw on the timer.

Inter-observer agreement was conducted on seven of the eighteen sessions, or for 39% of the sessions. Inter-observer agreement was calculated by dividing agreements by agreements plus disagreements and then multiplying it by 100. The timing agreement for all observations was 100%.
Results
Baseline

The time in minutes and seconds it took John to finish using the bathroom is shown in Figure 1. During baseline, John took 8 minutes and 24 seconds to finish using the bathroom for session 1. John needed 11 minutes and 6 seconds in session 2. For session 3, John needed 9 minutes and 32 seconds to complete using the restroom. The average time in minutes it took John to use the bathroom independently during baseline was just over 9 minutes.

Timings and Rewards

When timings and rewards were employed, the time required to complete toileting decreased. He was able to steadily decrease the amount of time he spent in the bathroom over time. At session 7, he took four minutes and twenty-four seconds in the bathroom. After session 7, John spent between 3 to 5 minutes using the restroom. This was a large change from the amount of time recorded in baseline.

Baseline 2.

A return to baseline resulted in an increase in the time required for toileting. For that session 9 minutes and 25 seconds was required for successful completion of toileting.

Timings and Rewards

A return to this phase produced a decrease in the time required to appropriately use the toilet (range 4.1 minutes to 5.1 minutes).

Discussion

Employing the timer and rewards had positive outcomes with our participant. John drastically decreased the amount of time he spent in the bathroom, from baseline to intervention. As the intervention went on, it seemed that John had a better understanding of what was expected, and less prompting was needed. It seemed that the subject was very willing to work for reinforcement, which resulted in a decrease his toileting time. Overall, the study was very successful.

The present outcomes provide an additional replication of instituting and employing components of the Azrin and Foxx rapid toileting program (1971, 1974). We were able to employ the components of providing access to a toilet and the use of consequences. Also, we could employ a timing devise to reduce the amount of time for our participant to complete toileting. These outcomes provide an additional example of being able to teach toileting in a classroom setting (Chung, 2007, McManus et al., 2003; Sells-Love et al., 2002).
One of the strengths of the reward was it was determined to be so through a forced choice preference assessment (Alberto & Troutman, 2012; Fisher et al., 1992). It was known that he was really enjoyed and would work for adult attention. John was very aware of what would happen if he beat the timer, so he worked very hard to do so. John enjoyed working for the reward, and would head to the restroom when asked.

There were limitations in the present case study. First, although adult attention was reinforcing, it was one that may not be as realistic John’s future classroom setting, which was going to be an integrated kindergarten. The reward was determined to be one John would like, which is why we employed such a consequence. However, it was time consuming, and took John away from some activities his classmates were participating. A reward that took less time to present, such as a food item would have been easier to give, and should result in less loss of instructional time. Due to the ending of the first author’s student teaching, data collection was terminated. However, additional contacts with the classroom teacher indicated that our participant has continued to take less and less time in the classroom restroom. An additional limitation was the downward trend shown in baseline. However, the changes in level as well as rapid reversal in baseline 2, may well overrule this limitation. Unfortunately, the second baseline condition on lasted for one session. This was at the request of the classroom teacher.

Overall, the study was successful. John’s teacher noted how helpful it was to have the subject out of the restroom in a quick amount of time. John also enjoyed it, and was very willing to work. The intervention will continue to be carried out in the preschool; however, the reward has changed to something quicker, such as a gummy bear treat. John continues take less and less time in the bathroom.

References


Figure 1. The amount of time in the classroom bathroom during baseline, timing and rewards (9, 8, 7 minutes criteria) baseline 2, and timing and rewards (6 and 5 min criteria) for our participant.
THE EFFECTS OF PICTURE MODELING FOR REDUCING THE NUMBER OF REDIRECTIONS WHEN TEACHING 2-STEP DIRECTIONS FOR A PRESCHOOL STUDENT WITH DEVELOPMENTAL DELAYS: A BRIEF REPORT

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Abstract: The purpose of this study was to improve the ability to follow a two-step direction of one preschool student diagnosed with developmental delays. In order to improve the participant’s skill in this area the we examined the effects of picture prompting. The outcomes indicated that our participant improved his skills at following two step directions. We also reduced the number of redirections needed by our participant to complete his tasks. This study extended the previous research on the topic by testing a self-monitoring picture prompting intervention in a way that can be used in a naturalistic classroom setting.

Key Words: two step directions, re-direction, developmental disabilities, preschool student, special education classroom setting, picture modeling

Introduction

Children with an unclassified developmental delays experience difficulties in many areas of life (Howard, Williams, & Lepper, 2010). Specifically, school tends to be more challenging for students diagnosed with developmental delays than it is for their typically developing peers. Hsieh, Hsueh, Huang, Lin, Tseng, and Lee (2013) found that children with these diagnoses have a significantly lower quality of life than children without the diagnosis. The components of the diagnosis were found to affect the parents as well, and many family members also had a lower quality of life.

Review of Literature

In order to increase the quality of life for children diagnosed with developmental disabilities, several studies have been done to test ways to increase the skills of children diagnosed with developmental delays. Bialas and Boon (2010) tested the effects of self-monitoring with three male kindergarteners diagnosed with developmental disabilities. Self-monitoring increased the classroom preparedness and on-task behavior of all three students. Duttlinger and colleagues
employed middle school students with developmental disabilities and found that the use of pictures activity schedules increased each student’s ability to complete 3 or 5 sequence tasks.

Speech and language delays have been found to be the most common type of developmental delay (Developmental Delays). Turan and Yasemin (2012) determined that special education preschool teachers prefer to implement naturalistic versus therapeutic techniques to teach language to their students. Clearly, research is needed to assist preschool students with developmental delays in natural settings such as the preschool classroom.

The purpose of this study was to improve the ability to follow a two-step direction of one preschool student diagnosed with developmental delays. In order to improve the participant’s skill in this area the first author planned to test the effects of picture prompting. This study will extend previous research on the topic (Bialas & Boon, 2010; Duttlinger et al., 2013; Turan & Yasemin, 2012) by testing a self-monitoring picture prompting intervention in a way that can be used in a naturalistic preschool classroom setting. A second purpose was to improve the participant’s independence by reducing the number of redirections required for him to complete a task.

Methodology

Participant and Settings

The participant was a five-year-old male, with a diagnosis of developmental delays. At the beginning of the study the first author completed the Battelle Developmental Inventory-2 (Newborg 2012) to obtain the participant’s present level of performance across domains. In the adaptive domain the participant scored in the 75th percentile in the self-care subdomain, and below the 1st percentile in personal responsibility. The participant’s scores under the personal social domain were the 37th percentile for adult interactions, 63rd percentile for peer interaction, and 9th percentile for self-concept and social role. Under the communication domain the participant scored in the 1st percentile for receptive communication, and below the first percentile for expressive communication. His motor results were the 63rd percentile for gross motor, 2nd percentile for fine motor, and below the 1st percentile for perceptual motor. The participant scored below the 1st percentile in all three subdomains (attention and memory, reasoning and academic skills, and perception and concepts) of the cognitive domain.

The study took place in a special education preschool located in a large urban school district in the Pacific Northwest. The classroom predominantly served children with hearing and speech impairments, and was integrated with a regular education preschool classroom. The participant attended morning preschool, which was in session from 9:00 to 11:30 am Monday through Wednesday and 9:30-11:45 on Thursday. The study took place during the classroom literacy center, which usually occurred between 9:30 and 10:00 am. Each day the classroom had approximately 15 students, two full time teachers, three instructional aids, an American Sign
Language interpreter, and the student teacher (the first author of this study). On occasion there would also be a Speech Language Pathologist, two physical therapists, an occupational therapist, and up to five university students in the classroom. The first author took the participant into a small office attached to the main classroom to complete the study.

Materials

During baseline and intervention the participant was given all materials needed to complete each step of the 2-step direction. These materials varied from day to day as the instructions varied. For example if the 2-step direction given was to copy the alphabet and complete a matching activity, the participant would be given a work sheet with the alphabet printed on it and room to copy each letter, a work sheet with pictures that needed to be matched, and a pencil.

![Image of a picture card with letters]

*Figure 1.* The picture card as shown when each 2-step direction was given, and before any step of the direction was completed.
Figure 2. The picture card as shown when both steps of the direction had been completed, and both task pictures were covered with flaps depicting pictures of thumbs up.

During intervention the participant was also given a picture card to help him remember the 2-step direction (see Figures 1 and 2). The picture card had two pictures on the top of it. Each of these pictures showed one step that the participant was to complete. Below each picture was a flap. When each of these flaps was flipped up they showed a picture of a thumb up. The picture of the thumb up would cover the picture of the task. The participant also had a sticker chart. This chart was a green piece of paper with the participant’s name on the top. Every time the participant completed both steps of a 2-step direction he could turn the picture card into the first author for a sticker to place on his chart.

**Dependent Variable**

The dependent variable was the total number of times that the participant required redirections to complete the 2-step direction. Each time the participant was off task for 10 seconds the first author redirected the participant to the task. During baseline the first author redirected the participant by reiterating the direction. During intervention the first author would redirect the participant by reiterating the direction, reminding the participant of the function of the picture card.
Experimental Design and Conditions

An ABAB single subject reversal design was employed (Kazdin, 2011; McLaughlin, 1983). A description of the various conditions follows.

**Baseline.** During baseline the participant was given a 2-step direction, and the materials to complete each step of the direction. If the participant was off-task for 10-seconds the first author would restate the 2-step direction. Baseline was in effect for two days.

**Picture modeling.** During intervention the instructor gave the 2-step direction, and explained how it related to the picture card. The participant was shown that each picture on the top of the picture card correlated with one step of the direction. He was then shown that there was a flap under each picture. He was told to flip up the flap below each picture as he completed the corresponding task. When each flap was turned up it revealed a picture of a thumb up, which covered the picture of the task. He was told that when he completed both steps he could turn the picture card in for a sticker. If the participant got off-task for ten seconds during intervention he reminded of the 2-step direction, the function of the picture card, and the sticker he could receive upon completion. This was tallied as a redirection. This condition was in effect for six sessions.

**Baseline 2.** After the participant completed three sessions without any redirections, baseline was reinstated. The same baseline procedures were followed.

**Picture modeling 2.** This was a replication of the first intervention phase. It lasted for four sessions.

**Reliability of Measurement**

The data sheet (Appendix A) allowed the first author to tally each time a redirection was given to the participant. If the participant did not require a redirection a 0 was marked. Sessions were videotaped in order to take inter-observer reliability. A third-party observer reviewed the videos and completed the second data form that was the same the one the first author completed. The first author then calculated the inter-observer agreement. Interobserver agreement for 5 of 15 sessions was 100%.

**Findings**

The number of redirections needed during each session is shown in Figure 1. During baseline the participant required a mean of 20 redirections across two days of baseline (range: 10-30). During picture modeling, only an average of 2.5 redirections were required (range:0-8). When baseline was again in effect, a mean of 5 redirections took place (range:3-7). During the second application of picture modeling, the mean redirections needed decreased to 1.25 (range: 0-4).
Figure 3. The number of redirects needed for our participant to complete a 2-step direction during baseline, picture modeling, baseline, and picture modeling.

Conclusion

Using picture modeling was effective in teaching the participant to independently follow a 2-step direction. The participant showed a large decrease in the amount of redirections required to complete a 2-step direction. Upon the completion of the intervention he did not require redirections to complete the 2-step direction. Because of the direct correlation of the amount of redirection needed and the implementation, removal, and reimplementation of the intervention the results can be directly attributed to the intervention.

The participant’s attitude toward the task also changed throughout the intervention. During the initial baseline the participant would complain that he did not know how to complete the tasks, did not want to complete tasks, or should not have to complete tasks. He would frequently put his head down and quit working or begin to tell the first author a long story in an attempt to avoid the task. After intervention began the participant’s off-task behavior decreased. On occasion he would tell the first author how good he was good at the task. He would say “I can do it now!” His attitude greatly improved when the intervention was in place.

A key strength of this study was the ease of implementation. The first author designed the picture card out of classroom supplies. The picture card was small and easy for the first author.
to keep available to the participant. If a teacher or instructional assistant were to continue this intervention it would not require much extra time or any extra supplies.

The brief period of data collection and the use of only a single participant were weaknesses of the study. Further research should be done to determine if the intervention would be effective across many participants with a range of disabilities. The participant was frequently absent during the intervention, which limited the amount of time the first author could spend with the participant. The small number of intervention days due to illness likely affected on the participant’s ability to benefit from the intervention.

If the first author were to continue this study, directions would increase in difficulty to teach the participant to follow 3 and 4 step directions. The same picture modeling would be used, but with a picture card that allowed room from more pictures to match multi-step instruction. The first author would begin implementing the intervention with more participants to test the effectiveness.

These results were important because they increased the receptive language skills and ability to follow a two-step direction for one child diagnosed with developmental disabilities. As shown by Bialas and Boon this is likely to increase the participant’s preparedness and on-task behavior. This increase in ability will be beneficial in increasing the participant’s quality of life. Finally, we were able to replicate and extend the findings of Bialas and Boon, (2010), Duttlinger et al. (2013), and Turan and Yasemin, (2012). In addition it adds additional evidence that special education teacher training programs can improve the lives of children with disabilities employing data-based and behavioral methods (McLaughlin, B. Williams, R. Williams, Peck, Derby, Bjordahl, & Weber, 1999).

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References


