

EDID6504- Programme Evaluation and Course Assessment Methods

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### **Phase 1**

The EduTech 2000 program launched in Barbados focused on many areas of reform in the education sector. According to the Ministry of Education (Barbados) (2000) the overall aims of EduTech 2000 included satisfying the need to develop a workforce that adapts to changing conditions, develop creativity, revalue the role of teachers, purpose behind use of ICT, structures required to support integration of ICT into curriculum. The rationale was that these developments “place students at the center of the teaching and learning processes.” Their programme placed great emphasis on technology integration. Together with the 1995 White Paper reform, a series of objectives were to be met to satisfy the transformation of Barbadian education from an industrial-age system to a system that both acknowledges and caters to the individual needs and abilities of learners. It was intended to nurture creativity and set the scaffolding for lifelong learning. The White Paper, the EduTech 2000 Master Plan, and the Curriculum 2000 document were to be used in tandem to direct, guide and influence policy, planning, and implementation. The Master Plan was shared in proposals to investors and stake-holders. It showcases the intended structures required by integration of ICT into all aspects of teaching and learning, including human and technological resources and school-level planning. The 1995 White Paper on Education reform outlined the need for a flexible, technologically skilled workforce. There have been many barriers and challenges in the implementation of Edu- Tech and while it was able to achieve some measure of success, its full potential, however, is yet to be realized. The programme was therefore repurposed as the Education Sector Enhancement Programme ESEP (formerly known as EduTech). This education reform programme aims to positively impact the number of young

persons contributing to sustainable social, cultural and economic development. According to the Education Sector Enhancement Program, its objectives are to:

- prepare students who are creative, numerate, literate, well-trained and readily re-trainable at any point in their development;
- ensure that all students understand the necessity of being able to live and work harmoniously with other persons in their environment;
- increase the efficacy of the teaching/learning process by encouraging teachers to shift to child-centred and more collaborative forms of learning in their classrooms; and
- ensure that all children leave school with the basic skills and abilities that are required to participate productively in the skill and technology-driven labour market.

The programme was able to influence a shift in the mindset and behaviours of some educators and school administrators in the field of technology and was most notably impactful within the Special Education Needs (SEN) schools for students with learning disabilities and impairments. In addition, special needs educators were able to foster a better understanding that interfaces between disability, poverty and practices of exclusion and marginalization. The special needs educators longed for updated and improved technology along with creative and innovative equipment, training and strategies to teach students with impairments to reach the objectives outlined by the ministry to help them to become fully functional members of society.

### **Reflection**

Upon reflection of this programme, ESEP catered and targeted the senior trained teachers within the teaching system. The approach was therefore a top to bottom method. The intention was that by training the managerial staff, the initiative would filter down to all members of staff within the organization. I propose the opposite approach — from the bottom up. The reasoning

behind this is simple. The senior trained teachers were more focused on retirement. Many of them had long accepted that the needs of the students entering mainstream school were displaying traits of a variety of learning disabilities. Many of the senior trained teachers were not motivated to invest in their professional development at this stage of their careers or to even learn the strategies and techniques required to cater to the needs of these students.

Newer trained teachers entering the systems were more inclined to learn new techniques and strategies of instruction.

### **Title of Programme**

The title of a proposed programme would be **Zeitgeist Education Reform**.

### **Description**

The needs to be addressed by the programme are in harmony with current practices and reformed legislature for classrooms of inclusion where teachers would be trained to deliver instruction in the area of Special Education Needs. Most teachers see traits and signs in students way before they are of age for diagnosis. These timely observations along with training are likely to better equip educators to cater to the young population of a country and not have them marginalized as citizens.

The objectives of the proposed programme include:

- **Civil Works-** physical rehabilitation of school facilities to enhance the physical and learning environment;
- **Technological Infrastructure-** procurement and installation of hardware, software and technical infrastructure for the school system and the Ministry of Education;
- **Human Resource Development-** Teacher Training - training of teaching and administrative staff within the school system

Institutional Strengthening - training and technical support for personnel from the Ministry and related institutions;

- **Laws -Legislature-** To foster inclusive education – disability stigma and discrimination.
- **Globalization** and cultural change in relation to disability.
- **Disability and the promotion of human development.**
- **Disability as part of Global Sustainable Development Goals transformation agendas**
- **Curriculum development reform-** revision of the curriculum to meet emerging needs within the Barbadian society inclusive of our special needs population. This is in keeping with the United Nation Sustainable Goals Development initiatives that Barbados has signed onto (specifically Goal 4 and Conventions Under Rights of Persons With Disability CRPD, Articles 7, 8 and 24).

The main target groups include the public sector, the community of the disabled, educators and all citizens.

The anticipated outcomes of the proposed programme include:

- Continuous Teacher training and development
- Disability studies as an emerging field of public health enquiry
- Inclusion practices in classrooms
- Legal /Policy and Human rights related to disability

There will be updates /adaptations and reform every 10 years. There are constant changes and challenges to the needs of societies (inclusive of genealogy). Learning material should be therefore adaptable and have a degree of fluidity (Polat 2011; Tomasevski 2004) furthermore Alquraini & Gut 2012 state that “in the international literature on inclusion emphasis is placed on strategies that ensure individual access and participation” with the focus on mastery of a desired

skill set. Many reformers advocate a move away from the traditional, teacher-centered instruction, where we move toward a more student-centered understanding-based (constructivist) approach (Smerdon, Burkham & Lee, 1999). The student-centered approach makes a radical departure from the traditional didactic approach. Student-centered instruction occurs when the planning, teaching, and assessment revolve around the needs and abilities of the students. The teacher shares control of the classroom, and students are allowed to explore, experiment, and discover on their own. This does not mean that the students are in control of the classroom, but rather that they have some influence in the decisions that are being made about their learning. Adaptive lesson plans in any heterogeneous classroom allow students to collaborate and learn from each other. Adaptive strategies and lesson plans can be satisfied under the cognitive, psychomotor and affective domains. Adaptive practices require teachers to know their students' needs, skills and abilities and assess them accordingly. In adaptive teaching and lesson planning, what students learn and understand is monitored more closely throughout the learning process with continuous assessment student development (chaining). Adaptive teaching embodies B.F Skinner's Shaping Experiment and successful use of this strategy includes problem based learning, cooperative learning and goal based learning which are in the high order thinking skills.

## **Phase 2**

### **Comparison of Naturalistic and Goal oriented approach**

The naturalistic evaluation model has been used in the evaluation of numerous programmes in schools, museums and social service agencies. According to Guba (1981) naturalistic evaluation acts as a hybrid of two trendy streams of thought; ideally responsive

evaluation from within the evaluation field and naturalistic methodologies from the area of qualitative inquiry. Additionally, in naturalistic evaluation the investigator enters a new situation with the intent of uncovering needs of clients and participants in the study. While all evaluation programmes have a cycle and lend themselves to streams of unintended and intended outcomes the **Zeitgeist Education Reform** has very specific objectives. The resources available to implement this programme are geared towards measurable objectives and must also be geared towards achieving them. This characteristic is more so a feature of Goal oriented evaluation.

Guba (1981) continued to explain distinguishable features between responsive and preordinate approaches. He noted that in responsive evaluation the value perspective is pluralistic; the organizers for evaluation design are audience concerns and issues, the evaluators' forms of feedback and communication are informal, continuous and suited to the audience's needs. The three main phases of a naturalistic evaluation are the familiarization phase, the action phase and the synthesis phase. Under the familiarization phase, one seeks to define some general and open ended categories and ideas about what to pursue. Many of the activities in this phase help to create a structure for the study with the understanding that one should remain flexible.

The goal oriented evaluation approach outlines that goals must be tailored to the stages of the program development. **Zeitgeist Education Reform** needs to observe the benefits of measurable indicators in the programme. The data must be reliable rather than whimsical and adopt the perceptions which is a feature known under naturalistic evaluation. Indicators under the goal oriented approach are qualitative whereas under the naturalistic approach they are largely quantitative indicators that are based on perceptions. It not easy to quantify perceptions which are innately dependent on how someone feels in a given period at a given time and subject to bias. The absence of indicators results in the inability to measure and manage the desired outcomes of



the programme. Goal oriented approach allows for well-defined indicators. Indicators which are SMART (Specific, Measurable, Attainable, Realistic and Time bound). These indicators are easily linked to logic model frameworks. Under Naturalistic evaluation, in the action phase the valuator aims to document the programme with “detailed descriptive data” and to support the emerging concerns and issues with a broad database of natural language quotations and observation entries. According to Guba (1981) the evaluator’s perceptions of issues and concerns are continually tested and reviewed in each encounter with the participants in the study. This approach lends to bias. The findings are not driven in any particular direction. For **Zeitgeist Education Reform** data collection has to be sourced from both primary and secondary sources for validity. Under goal oriented evaluation the programme has pre-determined goals that reduce the influence of evaluator bias on the findings. The naturalistic action phase includes processes such as interviewing, categorizing, analyzing and validating issues and concerns along with recording of observations and impressions.

## **Approach**

The goal oriented approach to evaluation has been chosen for the **Zeitgeist Education Reform** program because the nature of the evaluation model allows for evaluators to specify indicators, time table and targets. The measurable indicators forecast areas of alignment within the programme and provide us with additional streams of information which may be leveraged at a later date. The chosen goal oriented approach also allows for our team to strengthen public financial management and national procurement systems while securing and winning highly competitive externally funded grants (e.g. The United Nations groups). When managing the

results and findings there is a higher degree of accountability which is in keeping with international standards. The **Zeitgeist Education Reform** considers the best practices and standards of international bodies of evaluation to be forward thinking and less myopic and whimsical. Connors et al. (1999) assert that process evaluation should begin during the programme planning phase and continue through programme implementation. This characteristic allows for indicators to be constantly measured under the goal oriented approach. Hamilton (1980) posits that the process and indicator points of the evaluation focuses on what inputs were essential, what steps were crucial, and what factors really made a difference; this reason further compounds the choice selection as goal oriented as it allows for ongoing measurement throughout the programme to monitor the impact and effectiveness of inputs and changes to avoid financial hemorrhaging.

The goal oriented approach allows for the steps in developing the evaluation plan to include goals and objectives. It also allows for the benefit of clearly defined indicators which are SMART (Specific, Measurable, Attainable, Realistic, Time bound). The cyclical nature of projects as mentioned earlier under the goal oriented approach allows for reference to the logical framework which is a non-negotiable factor. Linkages may exist and become more visible; giving rise to frameworks such as consensual frameworks, results frameworks and logic frameworks. Indicators allow our team to know when and how to take action and accelerate progress. High quality data is important. Good data helps you to make well informed decisions; standardized understanding of what each indicator is measuring. Understand the context of where you are and where you want to be and how you will get there. It is a type of watchdog management.

The resources made available must be used to maximum effect as they are the functioning and multi-disciplinary government committee which will work together in the programme to achieve lifelong goals. The resources made available are human, financial and time. These

resources have to be well managed as resources give birth to the programme's desired outcome and determine how your use time will be used. It is therefore critical to analyze exactly what you are trying to achieve. Some people treat it as a cosmetic issue. It is not.

Barbados has signed onto many international agendas under both successive governments and the current government administration which they are still bound to. Among these are the United Nations Convention of the Rights of the Child treaty (CRC) which was signed on the 19<sup>th</sup> of April 1990 and The Rights of persons with Disabilities, signed on July 19<sup>th</sup> 2007 and updated on the 27<sup>th</sup> February 2013 and The United Nations Sustainable Goals Development. For the purposes of this paper our focus for the UN Sustainable Development Goals is on Goal 4 which is Education and for the Convention on the Rights of Persons with Disabilities CRPD we focus on Article 7, 8 and 24.

### **Validity Assurances**

**Zeitgeist Education Reform** is an educational programme. Education programme evaluations are typically executed to provide the information that stakeholders need to make decisions about programme resources, activities, outputs, and outcomes. More specifically, did the program achieve its short-, mid-, and long-term outcomes? The Goal oriented approach has a few limitations and with those in mind, quantitative measures must include additional measurement strategies inclusive of analytic strategies. To this end the construct validity which is concerned with the extent to which research measures what it claims to measure with implications of quantitative methods is satisfied with the methodologies inclusive of measurable indicators of the programme in its short term, mid and long term outcomes.

Additionally, the external validity which is concerned with whether a study's research findings can be generalized to other relevant settings or groups can be readily satisfied because the reality is that many of the students attending main stream school in Barbados have difficulty coping there due to learning disabilities. The gene pool of the nation has changed and the student population now includes persons who are dyslexic and autistic to name a few; therefore the sample choice is justified. Many educators are willing participants of this initiative because they realize that they are now catering to a class of students with mixed abilities and learning styles in a digital age. Lapolt (1997) suggested that evaluators should ensure that the methodology used in the evaluation had the statistical power that would justify claims that the programme was the sole cause of the outcome. Validity Newcomer, Hatry, & Wholey (2010) emphasize that the validity of a programme evaluation report is the level of assurance readers receive that the programme activities actually contributed to the outcomes, and the extent to which the activities did so. Morra Imas & Rist (2009) stated that the readers must be able to decide whether the measures actually measured what was relevant. The data collection instruments contain no ambiguities, however the same information has been formatted for proper client / student perception and understanding which allows for the instruments to be interpreted in the same way by all of the respondents. This is monitored using the indicator reference sheet.

### **Phase 3**

#### **3a. Description of the purpose of the outcome evaluation**

The purpose of this outcome evaluation is to improve people's lives in accordance with the United Nations Convention of the Rights of the Child treaty (CRC), The Rights of persons with Disabilities, and ultimately The United Nations Sustainable Goals Development 2030 which the nation has signed on to. This evaluation therefore serves to inform the United Nations and how decision making may be guided by the findings of the evaluation. The clients in this case are the funding agents( United Nations) and the government departments (specifically, The Ministry of Education). Satisfaction of intended outcomes translate to the release of another financial injection to achieve the sustainable goals for 2030. The aim of the Ministry of Education in Barbados is quality education for all (Ministry of Education 1995). The cooperation of all bodies and stakeholder is necessary. Change then is not whimsical, but based upon data generated in a wider context. (Newcomer, Harty&Wholey 2010).

#### **3b. The essential steps used to complete the outcome evaluation for this project**

1. Define the purpose – The purpose of the evaluation is clearly outlined and in alignment with its objectives.
2. Engage the stakeholders – The stakeholders and evaluators meet to ensure that all of the queries of the stakeholders are answers. This promotes transparency among all persons involved.
3. Data Collection and time frame -Indicators were measured in different ways to show how they are responsible for a specific outcome. The data collection method has to be transformed into usable information. Instruments include interview schedules, document analysis, checklists, individualized, and cluster randomized groups, quasi- experimental

designs and panel design. Most of the data collection may be acquired from the teachers and from the facilitators who train the teachers in the initial phases. More information gathering will be done on a consistent basis from parents and students. Morra Imas & Rist cautioned that evaluations in schools should have a meeting to review its findings at least after two thirds through the data collection period as a tracking method.

4. Data Analysis – The data collected is shared primarily with the client to provide them with the opportunity to dispel or correct any factual errors. It is best that the data analysis be examined around the main themes that emerged from the study (Morra I mas & Rist ,2009)
5. Distribution – The findings of the evaluation must be shared with those who commissioned the evaluation firstly. The proposed beneficiaries and participants of the programme should also have access to the findings as a right.

**3c. A relevant log-frame after this project**

<b>Problem: The United Nations Sustainable Goals Development 2030 agenda dictates that teachers need to teach in inclusive classrooms and incorporate technology. The nation therefore has to evaluate its status in the process.</b>						
<b>Logical Model Table</b>						
<b>Goal: To improve the use of technology in schools by use of integrating technology to facilitate online and collaborative learning as well as ease of access to learning resources in the inclusive classroom</b>						
<b>Objectives</b>	<b>Inputs</b>	<b>Activities</b>	<b>Outputs</b>	<b>Outcomes</b>	<b>Indicators</b>	<b>Means for Verification</b>
To support instructors in acquainting themselves with Curriculum Development reform with Inclusive education	Money Trained personnel Facilities Laptop, Tablet Multimedia Equipment	Viewing of PowerPoint presentations of the use of tablets, watching of video the show tablets in use with educational resources provided by the ministry.	Interactive training sessions	Inclusion practices in classrooms	80% usage by teachers and facilitators	Diagnostic and descriptive feedback
Disability as part of Global Sustainable Development Goals transformation agendas	Money Trained personnel Facilities Awareness Campaigns	Observation Demonstration Role play Presentations	Interactive training sessions Electronic Portfolios	Legal policy and Human rights related to disability.	60% increase in student satisfaction in mainstream schooling  55% reduction in reports on bullying of any kind.	Changes and updates in Legislature (Official Gazette)
Prepare students who are creative, numerate, literate, well-trained and readily re-trainable at any point in their development.	Money Trained personnel Facilities Laptop, Tablet Multimedia Equipment	Viewing of PowerPoint presentations of the use of tablets, access online databases, Watch YouTube content using Wi-Fi	Interactive training sessions Electronic Portfolios	Students are displaying competencies in areas needed for the 21 <sup>st</sup> century workforce in spite of learning challenges	50% reduction in deviance among student population as reported by the Juvenile Liaison Scheme. 65% increase in application from students who previously attended	Quasi /Experimental data sources  Surveys  Government reports

## EDID6504\_BOVELLM\_ASSIGN3\_PROGRAMME EVALUATION AND COURSE ASSESSMENT

					special needs schools into main stream schooling	
Ensure that all children leave school with the basic skills and abilities that are required to participate productively in the skill and technology-driven labour market.	Money Trained personnel Facilities Awareness Campaigns Laptop, Tablet Multimedia Equipment	Viewing of PowerPoint presentations of the use of tablets, access online databases, Watch YouTube content using WiFi Simulations Problem Based Learning	Interactive training sessions	Constructivist approaches have led to more students pursuing entrepreneurs-hip to support themselves	80% increase in apprenticeship and employment opportunities for the youth within both public and private sectors	Individual randomized groups  Summative test scores Cluster trials Interviews Panel design Propensity score
Civil works - physical rehabilitation of school facilities to enhance the physical and learning environment;	Money Trained personnel Facilities Awareness Campaigns Tradesmen and skilled workers  Procurement and installation of hardware, software and technical infrastructure for the school system and the Ministry of Education;	Viewing of PowerPoint presentations of the use of tablets, access online databases, Watch YouTube content using WiFi Simulations	Interactive training sessions	21 <sup>st</sup> Century learning environments at all school plants completed.  21 <sup>st</sup> century equipment and software suited for inclusive classrooms	55% of the schools have been successfully completed	





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