Learning Preference Wheel for the Mainstreaming Competence of Special Needs Education Teachers

Hel S. Patricio

Curriculum and Implementation Division, Schools Division of Cadiz City, Philippines
hel.patricio@deped.gov.ph

ABSTRACT

Mainstream education settings should ensure that the needs of all students are addressed and that all barriers which can potentially hinder their participation be removed. This action research aimed to determine the effectiveness of learning preference wheel towards mainstreaming competence of special needs education (SNEd) teachers**.** This sought answers to the level of literacy and numeracy rate of SPED High School learners after the implementation of the best practice, the level of mainstreaming competence of SNEd teachers after the implementation of the best practice; and the further development program to be proposed. The 13 Junior High and 5 Senior High SNEd Teachers as participants were identified through purposive sampling specifically the total enumeration. A 30-item Mainstreaming Effectiveness Monitoring Tool was utilized to assess the frequency and impact of the learning preference wheel. The learning preference wheel was given to all subject teachers that has served as their easy reference on aligning learners' interest and area of inclination. It was revealed in this study that the level of literacy and numeracy rate of SPED High School learners was above 75% National Standard. The level of mainstreaming competence of SNEd teachers after the implementation of the best practice was very high. The Learning Preference Wheel and the Mainstreaming Effectiveness Monitoring Tool in which inclusions and technical assistance are anchored, provided directions to teaching-learning opportunities for teachers. It is proposed that appraisal of teachers' training needs shall be undertaken so as to set learning targets and for technical assistance that encompass inclusivity.

Keywords: Preference Wheel, Mainstream, SNEd Teachers

Introduction of Best Practices

Learning Preference Wheel is a school innovation characterized as a contextualized chart that contains different learning preferences coupled with intended learning outcomes, learners' temperament and the suggested activity signals that would best fit their learning demands. This intervention will aid on how a learner prefers certain learning modalities and strategies over others. This unveils the ability of learners to perceive and process information in learning situations according to their natural, habitual and preferred way of assimilating new information. This facilitates the mode of instruction or study deemed most effective for them.

These learning preferences are: Visual and spatial learner, Auditory and musical learners, Physical or kinesthetic learner, Verbal learner, Logical and mathematical learner, Social and interpersonal learner and Solitary and intrapersonal learner.

Preference models focus on individuals' preferences for learning situation and include preferred time of day for study, temperature, light, preference for group or independent study. Personality-centered approach consider learning style within the framework of learners' personality. It was stated that learning incorporates personality as a major factor.

The concept of learning preference plays a key role in everyday learning of a child that is because they have a unique way of processing information. One reason is that learners know their own instructional needs best and hence only few teachers are qualified to tailor their instruction.

This intervention has the following purpose:

Serve Special Children – the school defines mainstreaming as one dimension of a rights-based quality education which emphasizes equity in access and participation and responds positively to the individual learning needs and competencies of all school children. Thus, this means that different and diverse students learn side by side in the same classroom, while receiving support for their individual learning needs.

This is anchored on the Save the Children's Framework for the Future that sets out a clear target that by 2030, all children will have access to good-quality, safe and inclusive basic education. This will increase the support to mainstream inclusive education following a twin-track approach: inclusion as a right for all and - where needed – with targeted interventions.

Adherence to Sustainable Development Goals - This focus is timely as it contributes to the implementation of the Sustainable Development Goals which is Ensuring Inclusive and Quality Education for All and Promoting Life Long Learning. This aims to ensure inclusive and equitable quality education and promote lifelong learning for all.

School Mainstreaming Advocacy - One of the most critical principles of mainstreaming education is the recognition that no two learners are the same and so inclusive schools place great importance on creating equal opportunities for students to learn and be assessed in a variety of ways, promoting assessment to support learning rather than to compare learners and create unnecessary competition between students. In such an education system differentiated curricula, classroom arrangements and teaching strategies accommodate different styles and rates of learning and ensuring quality education for all.

Justification of Best Practices Implementation

DepEd Order No. 044 s. 2021 released a policy guideline on the Provision of Educational Programs and Services for Learners with Special Needs in the K to 12 Basic Education Program. The enclosed policy guidelines shall provide an over-all direction and guidance in the organization, management, and implementation of appropriate programs, services, and interventions for learners with disabilities at the different levels of governance. Likewise, this policy may serve as guide for the external stakeholders and partners in addressing the needs of learners with special needs.

Mainstreaming is the inclusion of learners with special needs into general educational settings or regular schools. Mainstream education settings should ensure that the needs of all students are addressed and that all barriers which can potentially hinder their participation be removed. Thus, inclusive mainstream settings should provide inclusive and accessible school infrastructure, learning methods and pedagogies, as well as teaching and learning materials, among others (IIEP-UNESCO, 2021).

Consequently, matching teaching strategies and students' learning does not mean that the teacher adjusts the teaching style to the individual student's learning preference, nor that the teacher should use an all-encompassing teaching style for all students (Mkonto & Gilakjani, 2021). Rather, a more balanced teaching strategy, one that accommodates the different learning styles in the class is appropriate. They further assert that a teaching style that responds to one learning style will not address the needs of the rest of the students in the class.

Just like any other regular learners, the need for learning preference is likely to help special education teachers to identify their way of teaching and the way the student learn. Recognizing the differences in the way students learn is the first step in raising students' awareness of their own learning preferences. When students are aware of their learning preference, they learn quickly and easily and eventually perceived learning meaningfully (Biggs, 2021).

In the context of SPED High School, the mainstreaming of students with special needs to regular classes has been implemented for three years now. The big issue that the school was confronted recently is the matter of assessing the level of the effectiveness of the teaching strategy that teachers conveys to the students with special needs. The school then has strategized and figure out how learning preference wheel can play crucial role in sustaining learning and addressing the many challenging issues of inclusivity.

Objectives of Implementation

The objectives of best practice implementation are to:

1. enhance Special Needs Education Teachers' mainstreaming effectiveness in designing daily tasks in an inclusive classroom, and
2. increase literacy and numeracy rate through Learning Preference Wheel with MELCs-based suggested activities and teaching strategies suited and responsive to learners' needs.

Best Practices Implemented

The proponent of this best practice personally supervised teachers and spearheaded the administration and roll-out of the Learning Preference Wheel.

Before the start of the classes, each student was required to answer the Learning Preference Survey Questionnaire. This was used to assess students' learning preferences and skills inclination. The result of such, has served as basis for crafting and giving tasks to each student based on their learning needs.

The data on students' learning preferences as the backbone of this best practice as to why this idea has evolved was taken from the study of the school head titled: Smart Connect to Remedial Teaching Competence in making every SPEDian a Champion. The schematic diagram of the process flow was plotted below.

Figure 1
The schematic diagram of the process flow was adopted from Brown (2018) IPOOModel
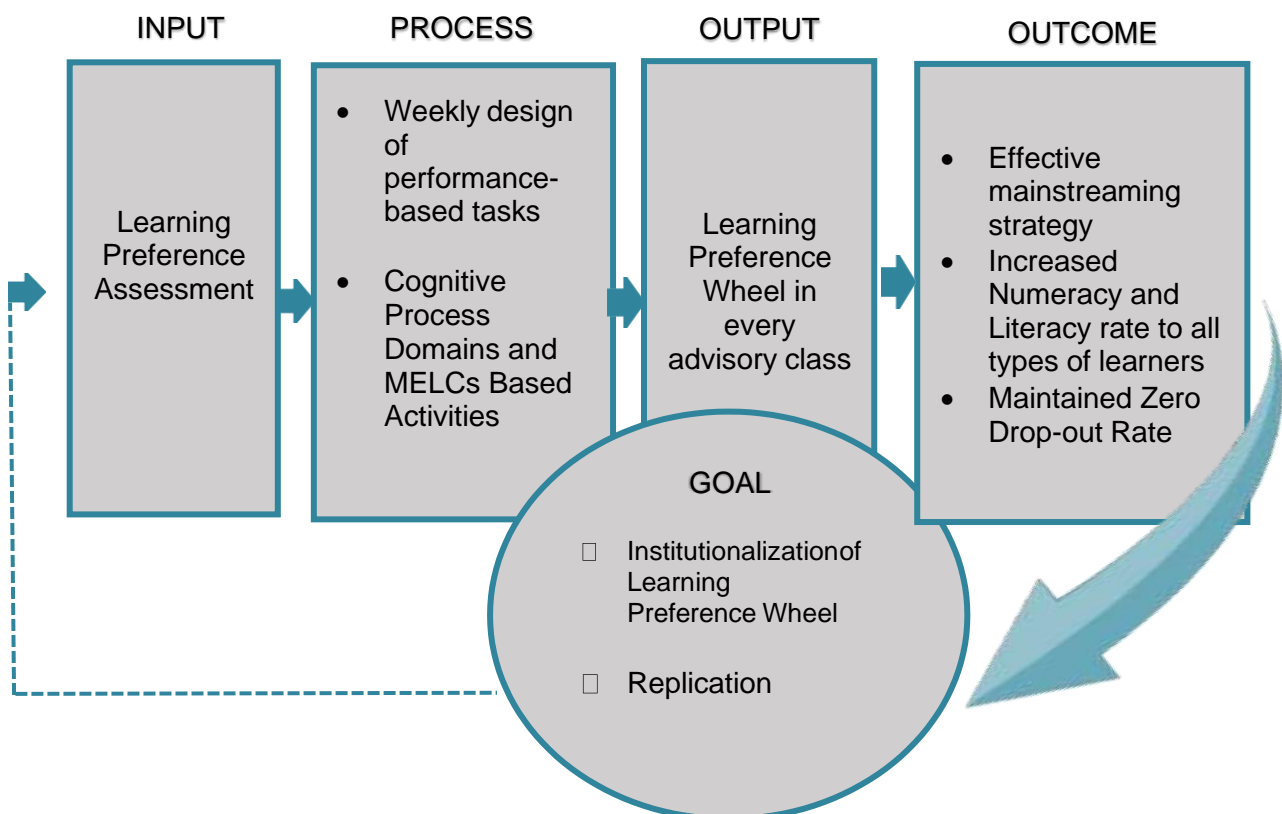
On the part of the teaching force, the school head has conducted the appraisal of profession plan for development. Of which the summary revealed that teachers need to be capacitated and requires learning resources to enhance their competence*.*

As to the legal basis of the teaching strategies and suggested activities, the Most Essential Learning Competencies (MELCs) were cited as reference. Theses competencies refer to the knowledge, understanding, skills, and attitudes that students need to demonstrate in every lesson and/or learning activity. Competencies are necessary to develop a learner's practical and lifelong skills for learning amidst a crisis and to eventually attain a successful life. It was shown in the figure below.

Figure 2
The conduct of School Personnel Conference regarding the Best Practice implementation

The intended learning outcomes anchor to the learning standards in the curriculum that reflects progressions of concept development. The Cognitive Process Dimensions adapted from Anderson & Krathwohl (2001) was a good way to operationalize the progressions. It provides a scheme for classifying educational goals, objectives, and standards based on revised Bloom's Taxonomy. It is illustrated in the figure that follow.

Figure 3
The Learning Preference Wheel Plotted in a Chart and as Illustrated in Tabular Form

Types of Learners (Scott Black)	Teaching Strategies (Cassidy's PCA)	Intended Learning Outcomes DO 08, s. 2015	Suggested Activities (MELCs-Based)
Visual and spatial learner	Teach using gestures, visualization and spatial language,	play, match, build, complete, locate, explore, construct, assemble, compose, accomplish, create, connect, compare	Matching Games Storytelling Context TANGRAM and Jigsaw Puzzle Map Reading Spatially Challenging Books Video Games Mental Imagery Color Photography Origami Craft Activities Play Musical Instrument Geometry
Verbal learner	Teach using word-based techniques	write, compose, take note, jot down, record, list down, research, investigate, study, review, examine, report, imagine	Word Games Keep a Diary Start a Blog Create a Podcast Join a Book Club Learn New Language Participate in Debate List New Words Write Stories and Poems Join Essay/Poetry Competitions Write Articles for Newspaper Write Letters to Penpal Visit the Local Library
Logical and mathematical learner	Teach using lists, numbers and statistics	solve, prove, recall, classify, organize, arrange, code, conduct, link, generalize, interpret, draw, conclude, simplify, calculate, synthesize, evaluate, justify	Mental UP Solve Brain Puzzles Play Board Games Solve Riddles and Tricky Questions Write Stories Scientific Experiments Learn Coding Conduct a Survey/Research Classify Things Explaining Events Playing with Blocks and Linking Cubes Drawing Pictures after

			referring to a Pattern
Solitary and intrapersonal learner	Employ independent study quietly and free from distractions and allow learners to set goals and tasks for themselves	respond, relate, apply, note, feature, detail, reflect, meditate, achieve, point out, write, compose, develop, account, discover, learn, notice, realize	Note Taking about Events Single-Player Puzzles Journaling, Scrap Books, Photo Albums Writing down goals and the steps need to achieve them Yoga and Meditation Treasure Hunts Writing Stories/Essays on personal point of view Reading independently
Auditory and musical learners	Teach by incorporating sound, rhyme, music and other aural content for associations and visualization	listen, find, associate, relate, present, perform, incorporate, participate, express, compose, discuss, explain, attend	Audiobooks/ Podcasts Read Aloud Find a Study Buddy Associate Music with Concepts Give Oral Reports Verbal Instructions Record Lectures Sing/Rap Your Notes Use Mnemonics
Physical or kinesthetic learner	Teach physical technique to learn how things work and why	dramatize, show, model, demonstrate, perform, act, present, modify, invent, construct, inspect, practice, design, direct, set up	Manipulatives Walking Tours Role Playing Charades Storytelling Memory Game Dancing Aerobics Drawing and Painting Pictures and Letter Cuts
Social and interpersonal learner	Teach through collaborative interactions and peer workshops	cooperate, collaborate, assist, provide, brainstorm, tap, connect, relate, support, contribute, join, interact, ask	Interviews Giving Advice Pair/Group Work Role Playing Leading the Group Brainstorming

Impact of Best Practices Implemented

The level of mainstreaming effectiveness of special needs education teachers after the intervention has obtained the overall Mean Score of 4.74 with the SD of 0.569 and was interpreted as very high. This signifies that the mainstreaming effectiveness of the participants in four areas of inclusive classroom has improved. It was evident that the Learning Preference Wheel as an intervention was proven beneficial to enhance teachers' mainstreaming effectiveness.

Table 1
The Level of Mainstreaming Effectiveness of Special Needs Education Teachers after the Best Practice Implementation

Areas	M	SD	Interpretation
A. Content, Knowledge and Pedagogy	4.69	0.587	Very High
B. Learning Environment and Diversity of Learners	4.19	0.554	High
C. Curriculum and Planning	4.26	0.552	High
D. Assessment and Reporting	4.57	0.568	Very High
Overall Mean	**4.74**	**0.569**	**VERY HIGH**

The Literacy and the Numeracy Rates of the learners have significantly increased within the duration of school year 2022-2023. After the implementation of the best practice, it was proven that the mainstreaming competence of the teachers has influenced the literacy and the numeracy performances of the learners.

Table 2
The Chart on Increased Literacy and Numeracy Rate after the Implementation of Best Practice
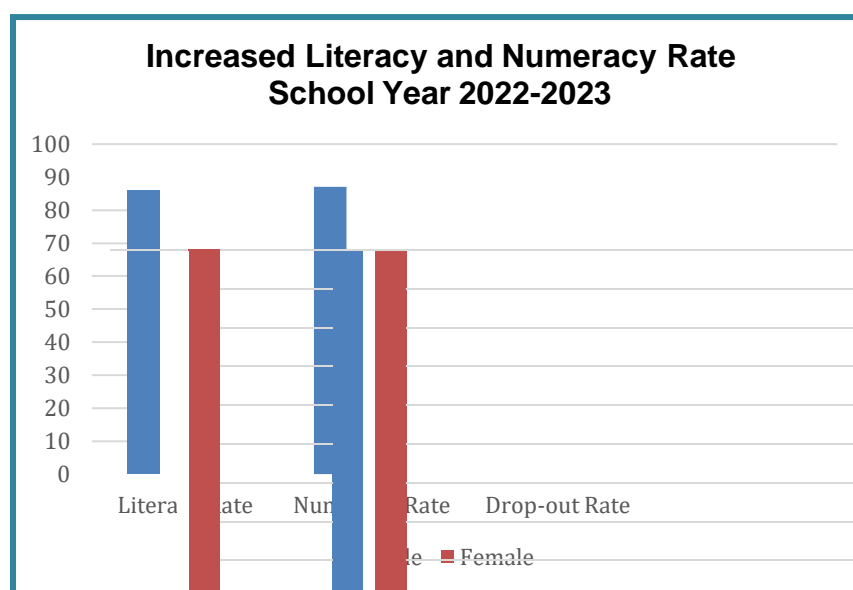
Summary and Recommendations

Summary

It was discovered that an inclusive classroom includes learners with special educational needs. These learners have learning disabilities that make it more difficult for them to learn than most children of their age. Learning Preference Wheel and the guide booklet facilitate education for learners with disabilities which aims at full development of their literacy and numeracy skills.

It was also found out that teachers may apply school-level initiatives with regards to catering learners with special education needs inside the classroom. The implemented best practice coupled with constant technical assistance conducted by the school head elicited to motivate SNEd teachers to see how mainstreaming effectiveness impacted inclusive education implementation.

Recommendations

Schools Division Office shall provide an over-all direction and guidance among schools in the organization, management, and implementation of appropriate programs, services, and interventions for learners with disabilities at the different levels of governance. Likewise, with the external stakeholders and partners in addressing the needs of learners with disabilities.

School heads shall strategize the development and application of best practice and technical assistance, and should communicate inclusive education to teachers, learners and other stakeholders, emphasizing the role of best practice in promoting literacy and numeracy.

The Learning Preference Wheel and the Mainstreaming Effectiveness Monitoring Tool in which inclusions and technical assistance are anchored, provided directions to teaching and learning opportunities for teachers. It is further suggested that school heads shall monitor critically teacher's classroom mainstreaming strategies. It may be recommended to initiate teaching-learning support materials and school level best practice so as to sustain students' interest and address inclusive education.

A program is proposed on the appraisal of teachers' training needs so as to set learning targets and for technical assistance. The learning preference wheel has offered convenience and easy reference for teachers in crafting daily learning activities that encompasses inclusivity. And that, the learning preference wheel and the guide booklet shall be institutionalized in the school level.

Reference

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