

EXCEPTIONAL STUDENTS AS LEARNERS OF PHYSICS SUBJECT: A CASE STUDY

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ABSTRACT: *This study aimed at gaining a deeper understanding of the exceptional students as learners of the Physics subject. It proceeded with the following objectives: 1) to be able to document the profile of the Fourth Year exceptional students enrolled in Western Mindanao State University - Integrated Laboratory School High School Department; 2) to be able to document the problems encountered by the teacher in teaching the Physics subject to exceptional students; and 3) to be able to document the problems encountered by the individual students in learning the subject. This paper is a case study, a form of qualitative descriptive research, aimed at providing an in-depth look at the cases that were examined extensively, and varied data were collected and used to formulate interpretations. Methods employed in gathering data included actual classroom observation, interviews and recordings, and case studies. The cases used for this study were two fourth-year exceptional students. One case was visually impaired while the other case was hearing impaired. In addition to this, the Physics teacher and the teacher-interpreter served as key informants of this study. Based on the findings, the following conclusions and recommendations have been made: 1) Exceptional students should be aware that they have a fundamental right to education. 2) The adaptation of the principle of inclusive education, enrolling all children in regular schools, is recommended. 3) A great deal of support and understanding from the parents of exceptional students is encouraged. 4) Further, it is highly recommended that similar research on exceptional students be done.*

INTRODUCTION.

In a developing country like the Philippines where education is given great importance and is believed to be a valuable key to success, it is desired that access to education is afforded to all students despite learning disabilities. This ideal shall enable them to live decent lives and to be productive citizens of the country.

Special education, just like regular education, takes the responsibility of the educational system to fulfill the right of the child to develop his full potential. Its ultimate goal is the mainstreaming of learners with special needs into the regular school system and eventually into the community. These learners with special needs are also referred to as exceptional learners. Exceptional learners are students who are differently-abled and are provided with particular educational services adjusted to their needs in a learning institution.

The trend of integrating people with disabilities into larger society began in the 1960s and continues stronger than ever today (Hallahan and Kauffman, ^[1]). In this learning situation, where exceptional students are integrated into the regular education system, the classroom teacher assumes an enormous and delicately important role in the teaching-learning process.

For the teacher's task to be effectively accomplished, the teacher has to be aware of the nature and extent of the learners' differences and the factors that account for wide differences among them (Salamanca Statement, ^[2]).

As a response to the mandate of the Department of Education, the Western Mindanao State University – Integrated Laboratory School, High School Department is one of the few schools in Zamboanga City that offers an Inclusive Program for exceptional students. WMSU-ILS High School Department is under the direct supervision of the dean of the College of Teacher Education. The department has an average population of 900 students with 41 faculty members. In the university, a Special Education Resource Center serves as the operating and implementing center for the different special education programs, namely: Special Elementary

Education (SEE), Special Secondary School (SSS), Special Tertiary Education Program (STEP), and Tertiary Inclusive Education Program (TIE).

The researcher, being a Physics teacher in the abovementioned school, handles classes wherein exceptional students are mainstreamed into the regular classroom. However according to Sharma et al. ^[3], striking a balance between teaching a regular class where exceptional students are mainstreamed and meeting the required standards for subjects like Physics, is extremely difficult. Given this situation, the researcher yearns to acquire a deeper knowledge and understanding of the exceptional students as learners. Furthermore, the researcher desires to know the problems encountered by both the teacher and exceptional students in the teaching-learning process of the Physics subject. Thus, this paper is an affirmation of the researcher's willingness to take up the challenge to work in her own field of responsibility and to contribute in her own little way to ensure that Education for All is translated into practice, heretofore, the birth of this study.

MATERIAL AND METHODS.

This paper is a qualitative research concerned with non-statistical methods of inquiry and analysis of social phenomena. It draws on an inductive process in which themes and categories emerge through the process of data collected by such techniques, as audio records, interviews, and case studies. Samples are usually small and are often purposely selected. According to Johnson and McElroy [4], qualitative research is a detailed description from the perspective of the research participants themselves as a means of examining specific issues and problems under study.

This qualitative case study utilized the qualitative method covering six months of actual classroom observations of the respondents and conducting interviews of the respondents, and key informants, such as the Physics teacher of Western Mindanao State University – Integrated Laboratory School High School Department and the teacher-interpreter.

This study on the exceptional students as learners of Physics fitted the characteristics of qualitative research study advanced by Bogdan and Bikken as cited by Pernia in his research ^[4], as (1) Qualitative research has the natural setting as the direct source of data and the researcher is the key informant. (2) Qualitative research is descriptive. (3) Qualitative researchers are concerned with processes rather than simply outcomes or products. (4) Qualitative research is theory-generating.

Given these considerations, it is but proper to recall that the researcher's interest in conducting this case study has stanchd from her personal experience as a teacher of Physics and witnessed the struggle of many exceptional students and teachers teaching them.

This being a qualitative study, no theories were formulated before the study was undertaken. However, driven by the paradigms of comprehension and liberations, certain questions concerning the problems encountered by exceptional students as learners of Physics have become convincing and be sought for answers.

The area where the research was conducted was purely concentrated in Campus B of Western Mindanao State University – Integrated Laboratory School, Secondary Department, Normal Road, Baliwasan, Zamboanga City. Campus B is where the high school department is located.

The exceptional students are assisted by teacher–interpreters who are University SPED Center faculty members. They assist exceptional students in the classroom in terms of sign language interpretation, note taking, and reading. They also take charge of academic monitoring and student guidance.

Two exceptional learners served as the cases for this study. One exceptional student was visually impaired while the other one was hearing impaired. They were individually observed in the classroom during Physics class at least ten times to meet the objectives of this study. They were also invited for an interview.

In addition to this, the Physics teacher and the teacher-interpreter of WMSU–ILS were key informants of this study. Through the interview conducted with them, the researcher was able to gather valuable data and information.

The classroom was the specific setting of interest for direct observation and collection of data. A considerable amount of time was actually spent by the researcher being in school observing and interviewing exceptional learners and interviewing their Physics teacher and teacher-interpreter.

School records and interviews supplied information in determining the profile of each exceptional student in terms of age, gender, special needs, parents' occupation, economic status, and other vital information that may be needed in this study.

A Classroom Observation Guide was utilized to meet the objective of knowing how the unique needs of the students will be addressed in terms of classroom instruction, instructional materials, as well as classroom assessment procedures, and the students' response toward the abovementioned factors.

Guide questions for the open-ended interview with the cases, subject teacher, and teacher-interpreter of the exceptional students were also formulated to acquire deeper a understanding of the problems they encounter in the teaching-

learning process in the Physics subject. The items identified in the interview guide were further strengthened with the use of more follow-up questions.

To ensure reliability and validity in this qualitative research study, the researcher considered adopting several methods and prolonging the processes of data gathering on-site. This will help guarantee the accuracy of the findings by providing the researcher with more concrete information upon which to formulate interpretations. According to Golafshani "engaging multiple methods, such as observation, interviews, and recordings will lead to more valid, reliable and diverse construction of realities"^[5].

Denzin (1978) as cited by Golafshani (2003) said that "reliability and validity are conceptualized as trustworthiness, rigor and quality in qualitative paradigm. It is also through this association that the way to achieve validity and reliability of a research get affected from the qualitative researchers' perspectives which are to eliminate bias and increase the researcher's trustfulness of a proposition about some social phenomenon using triangulation". In line with this concept, the researcher employed the process of "Triangulation" where a variety of data sources were used as opposed to relying solely upon one avenue of observation. Creswell and Miller (2000) as cited by Golafshani defined triangulation to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study"^[6].

In line with the abovementioned descriptions of triangulation, the researcher gathered data through the conduct of a series of classroom observations and interviews with the two cases as well as with the Physics teacher and teacher-interpreter. The answers to one question were cross examined to search for convergence and regularities in the research data.

The researcher also initiated and maintained an active corroboration on the interpretation of data between the researcher and those who provided the data. In other words, the interpretations made by the researcher were discussed with the cases and other respondents for further confirmation. Prior to composing the final draft of the report, the researcher engaged in consultation with colleagues in order to establish validity through pooled judgment.

The exceptional students were also interviewed. They were asked to identify the problems they encountered in learning the subject and to propose solutions whenever possible.

RESULTS

The Cases: The Profile of the Two Exceptional Students Enrolled in WMSU

Case 01 The Profile of Stevie Wonder: Looking Through His Eyes

Stevie Wonder is a 22 years old fourth year male student. He is the fourth child among six children in the family. His mother, a high school graduate, is a housewife while his father, a college graduate, is a policeman.

Up to the age of 14, he had low vision. Meaning, that he has reduced vision wherein he can see silhouettes and colors only. But at the age of 15, he got sick with a very high fever and this affected his vision. From then on, he was totally blind.

Being visually impaired, he learned how to use the Braille system at age 15. It was at this same age that he was taught

by his neighbor how to play the piano. He likes playing musical instruments and listening to music during his free time. At times, he performs during programs in school.

Case 02 The Profile of Halle Berry: The Sound of Silence

Halle Berry is a 19-year-old fourth-year female student. She is the youngest among three children in the family. Her mother is a housewife and reached her second year in college while her father is a retired serviceman and reached third year in college.

Halle Berry was born with a hearing impairment. In her grade school years, she wore a hearing aid but now she no longer uses it because of the severity of her hearing impairment. She can do a little lip reading or speech reading which is actually a technique of understanding speech by visually interpreting the movements of the lips, tongue, and face. She has a medical condition called blue baby syndrome which contributed to her being sickly, thus, incurring absences in school.

Halle Berry loves to dance and she actively participates in activities organized by their SPED group.

A. Key Informants

Key Informant No. 01

Key Informant No. 01 is a female Physics subject teacher at the Western Mindanao State University – Integrated Laboratory School High School Department. She finished a degree in Bachelor of Science in Education majoring in Physics and has completed the academic requirements in a Master of Science in Teaching Physics. She has been in the service for six years teaching Physics to Fourth Year High School students at the above-mentioned university. According to her, she has not attended any special training related to handling exceptional students, she is barely equipped when it comes to handling exceptional students, and her only formal education in this field is a three-unit undergraduate subject called Special Education (SPED) 101. In addition to this, her day-to-day experience with exceptional students is what she considers her best teacher in the field of handling them.

Key Informant No. 2

Key Informant No. 2 is a female faculty member of the Western Mindanao State University – Integrated Laboratory School High School Department. She is assigned to handle the Fourth Year exceptional students. She finished a degree in Bachelor in Elementary Education majoring in Special Education. She has been in the service for four years as a teacher–interpreter in the said university and has attended several seminar workshops and trainings related to handling exceptional students.

A teacher–interpretary is a certified professional who uses Signed English to interpret spoken English for people who are deaf or hard of hearing.

Classroom Observation

Day 1 (9:50-10:50)

The lesson in Physics for this day was on Projectile Motion. The lesson was discussed through problem solving - board work activities. The teacher made use of some illustrations as visual aids to further interpret each given word problem. After the board work activities, students were asked to try solving other problems on their seats. The students were

evaluated for the day through a one-item word problem quiz which required three answers.

Case 01

Stevie Wonder was observed to be very attentive. He listened very well to the discussion of the teacher and at the same time, he "wrote" using his Braille system. The Braille system that he is using was provided for him by RBI (Resources for the Blind, Inc.) – Davao through the coordination of the SPED Center – WMSU. He made sure that he took notes and jotted down important concepts and equations that the teacher mentioned. He was able to follow the teacher's instructions and when the researcher asked him if he understood the discussion for the day, he confidently said yes. When the teacher told the class to use their calculators to compute the answer, Stevie Wonder also got his calculator from his bag. His calculator was a talking scientific calculator. This talking scientific calculator was lent to him by RBI – Davao.

The researcher noticed him reading from his Braille system by simply feeling the dots he made earlier in the paper. He was recalling the given values for the computation. The researcher realized that he had memorized already the order of the keys in his calculator. He was able to get the correct answer for the sample problems given.

During the quiz, the teacher–interpreter read out loud the problem for Stevie Wonder. He listened and at the same time wrote down the given values for later computations. He proved to have a good memory because he was able to recall the conversion factors needed to convert the given values from one unit to another and he has memorized well the list of kinematic equations which were needed for the day's topic. As for his regular classmates, they were allowed to refer to an index card for the long list of kinematic equations.

Stevie Wonder was able to provide two correct answers out of three.

Case 02

In the case of Halle Berry, the teacher–interpreter used sign language to interpret what was being discussed by the subject teacher. Halle Berry jotted down notes and at the same time asked the teacher–interpreter to clarify some concepts. During the quiz, she copied the given word problem posted on the board and tried to answer on her own. At some point, the teacher–interpreter helped her further understand the given word problem and assisted her in answering the problem.

Halle Berry was able to give only one correct answer out of the three required answers.

Day 3 (9:50 – 10:50)

On this day, the lesson in Physics was on Newton's Second and Third Laws of Motion: The Laws of Acceleration and Interaction, respectively. For this lesson, the Physics teacher used illustrations posted on the board to show the different concepts involved in these topics. At the same time, three problem-solving items as board work activities were utilized to discuss the mathematical concepts of these topics. Before letting the students solve the answers to the given problems, the teacher made sure that the given situation in each problem was well-explained to the students so that they would have a clear picture of the said problem. The teacher demonstrated first how to solve a similar problem before letting the

students answer the rest of the items as their seatwork activity.

Case 01

While the teacher discussed the lessons for the day, Stevie Wonder listened attentively. From time to time, he asked the teacher–interpreter for some clarifications. He wrote down some concepts he was able to pick up from the subject teacher's discussion. He made use also of his talking – scientific calculator to compute some values as instructed by the subject teacher.

After the discussion, the teacher–interpreter asked Stevie Wonder if he understood the lesson for the day. He said, *“Not really, Ma’am, because I can’t clearly hear what the teacher is saying.”* Two points were observed that may contribute to this difficulty experienced by Stevie Wonder : (1) the classmates were observed to be very noisy while the teacher was discussing and (2) the exceptional students were seated at the back.

And so, the teacher–interpreter explained further the given problem to Stevie Wonder. Stevie Wonder tried to solve and compute using his calculator. Later, the Physics subject teacher approached Stevie Wonder and asked if he had a question. He said, *“None.”* So, to check if he really understood the lesson, the subject teacher asked him a question and a follow-up question on general concepts and equations. Stevie Wonder was able to answer correctly.

Case 02

Halle Berry was absent on this day because she was sick. According to her teacher–interpreter, she is sickly being a blue baby, thus, she incurs a lot of absences.

The topics for today were difficult for the students to understand. The discussion was quite long so there was no time left for assessment. An assignment was given instead. The students were assigned to bring their laboratory manual and needed materials for the laboratory activity to the next meeting.

Day 4 (9:50 – 10:50)

On this day, the class performed an outdoor laboratory activity on Acceleration due to Gravity. The teacher gave first the pre-laboratory discussion inside the classroom and made some illustrations on the board on how the students would perform the activity. She also checked on each group if each member had the laboratory manual and needed materials such as a meter stick, string, marble or ball, and stopwatch. After doing these, the students were asked to form a single line outside the classroom and proceed to the second-floor corridor of the TLE Building where they will perform the activity.

The exceptional students were grouped together with five other regular classmates for the group activity.

Case 01

Stevie Wonder has already prepared the activity sheet ahead of time using his Braille system. The teacher–interpreter read to him the procedure from the manual. Stevie Wonder wrote additional information on his activity sheet using the Braille system.

The activity was performed at the TLE Building which has

been newly renovated. The teacher–interpreter explained to Stevie Wonder the renovations made for Stevie Wonder's familiarity with the building. The regular classmates were the ones who performed the activity. Stevie Wonder wrote down the data gathered.

For this one-hour session, the students were only able to gather data. The preparation of the laboratory report was scheduled to be done in the afternoon since they will meet again for another one-hour session.

Case 02

Halle Berry was still absent on this day.

Day 7 (2:00 – 3:00)

For this afternoon session, the teacher instructed the students to prepare their laboratory reports which will be collected after the one-hour session. They were specifically instructed to complete all data tables, show computations for some computed values, and answer all post-laboratory questions.

Case 01

The students formed their small groups so they could finalize the data in their data tables and discuss the answers to the post-laboratory questions through a buzz session. Stevie Wonder listened to the discussion and wrote his answers on his paper using the Braille system. At times, he also contributed some ideas during the buzz session. When the teacher announced that only ten minutes were left before the time, Stevie Wonder checked first his answers by feeling the dots on his laboratory report. Then, he gave his paper to the teacher–interpreter. The teacher–interpreter, then, translated the varied arrangements of raised dots and wrote the equivalent words over each set of dots. Then the teacher–interpreter read to Stevie Wonder the translation and he gave his affirmation.

Case 02

Halle Berry was still absent.

For this activity, Stevie Wonder was able to finish and submit his laboratory report on time. According to the teacher–interpreter, in some previous laboratory activities, Stevie Wonder failed to finish the laboratory report on time, so the subject teacher just gave him more time to finish and allowed him to submit the said report later.

Day 10 (9:50 – 10:50)

Conservation of Momentum was the lesson for this day. The teacher utilized concrete objects like wooden carts and steel balls to demonstrate the important concepts involved in the abovementioned topic. Then the teacher discussed the equations. One sample word problem was given on the board for practice exercise. Another word problem was given as an assessment.

Case 01

While the teacher was doing the demonstration, the teacher–interpreter described to Stevie Wonder the demonstration that was taking place in front. Then Stevie Wonder wrote down some important points and the equations. The teacher–interpreter dictated to him the equations and he made some corrections on his notes. Stevie Wonder tried to answer the sample problem and discussed it with the teacher–interpreter. Unfortunately, he was not able to arrive at the final and

correct answer. So, when the correct solution was written on the board, he wrote it on his lecture notes and tried to understand the solution. During the quiz, the teacher-interpreter read to Stevie Wonder the problem that was posted on the board. Stevie Wonder wrote down the given values in the problem. He then touched the dots on his notes looking for the correct equation to be used and then solved for what was asked in the problem. He was able to get the correct answer.

Case 02

Halle Berry was still absent.

Day 25 (2:00 – 3:00)

On this day, the class performed an outdoor laboratory activity on Power. The teacher checked and made sure that the students brought their laboratory manuals with them as well as the needed materials. Then the teacher proceeded to a pre-laboratory discussion where she explained how each step of the procedure would be carried out. She added some illustrations on the board to further demonstrate to the class some points. When everything was made clear and there were no more questions raised by the students, the teacher allowed the students to go out of the room to start the conduct of the laboratory activity. The objectives of the activity included computing for the work done in lifting a book 1 m high and computing for the power of each member of the group in going up the stairs 1.5 m high.

Case 01

Stevie Wonder moved out of the room with his group mates and the teacher–interpreter. They proceeded to the area assigned to them where they would perform the laboratory activity. Stevie Wonder was exempted from going up and down the stairs because this was not safe for him given his condition. But he stayed close to where the activity was being performed by his group mates. The teacher–interpreter made him touch the part of the stairs that was 1.5 m above the level ground. He was also made to touch for familiarization the spring balance which was used to measure the mass of the book.

Case 02

Halle Berry was able to perform and participate in the activity just like the regular students. She was also able to interact with her regular classmates communicating with them using sign language. Some of her classmates were already able to adapt to the use of sign language since they had been classmates since their first year of high school.

Day 30 (9:50 – 10:50)

On this day, the teacher introduced the lesson by showing the following to the class: a piece of wood, a bottle containing water, and an inflated balloon. The teacher asked the class what these three objects have in common. Most of the students answered that these three objects have mass. With the answers derived from the students, the teacher was able to lead the class into defining matter. After this, the teacher introduced the lesson for the day which was States of Matter.

After a short recall on the States of Matter, the teacher divided the class into three big groups for Role Playing. Each group was assigned a particular state of matter, namely: solid, liquid, or gas. They were instructed to show how the molecules move in the state of matter that was assigned to their group.

Case 01

When the subject teacher asked the class to identify the objects shown to them, Stevie Wonder simply listened to the answers of his classmates. Then the teacher–interpreter told Stevie Wonder what the three objects were.

For the group activity on Role Playing, Stevie Wonder and Halle Berry stayed in the same group so that the teacher–interpreter would not have a hard time attending to each of them. While the leader of the group facilitated the discussion as to how they would do their group presentation, Stevie Wonder simply listened.

The researcher noticed Stevie Wonder taking down notes from time to time.

For the group presentation, Stevie Wonder was tasked to explain the movement of the molecules of an object in the solid state while the rest of the members participated in the role-playing.

Case 02

The teacher–interpreter translated to Halle Berry the questions that were posted by the subject teacher. Halle Berry also gave her guesses using the sign language.

During the group discussion, the teacher–interpreter did the interpretation for Halle Berry using sign language. Halle Berry was able to participate in the role-playing.

Due to time constraints, the teacher ended the day's session with a summary and generalization of concepts after the presentation of the last group. Thus, the performance of the students during the role play served as their evaluation for the day.

Day 34 (9:50 – 10:50)

The teacher started the day's session by collecting the assignment. Then she gave a short review of the previous day's lesson on density.

The lesson proper on Intermolecular Forces: Cohesion and Adhesion and Pressure exerted by solids followed. The teacher showed to the class a piece of chalk and asked how it is possible that the molecules of the chalk are held together. From the answers given by the students, the teacher was able to discuss Intermolecular Forces.

Then the teacher discussed the concepts of Pressure exerted by solids, its equations, symbols, and units. The teacher also showed some visual aids and asked the students to determine which illustration shows the greatest/least amount of pressure exerted.

After the discussion, the teacher proceeded to problem-solving activities on Pressure exerted by solids.

After enough time was given to the students to try answering on their seats, the teacher asked for volunteers to write the solutions on the board. Those who were not able to arrive at the correct answers were encouraged to copy and write the correct solutions on their lecture notebook.

The teacher told the class to read in advance on Liquid Pressure as their assignment for the next meeting.

Case 01

The teacher–interpreter told Stevie Wonder that a piece of chalk was shown to the class by the subject teacher.

During the entire discussion, Stevie Wonder was just listening to the subject teacher.

When illustrations were posted on the board, the teacher–interpreter described them to Stevie Wonder and asked him to

give his answers to the questions posted by the subject teacher. Stevie Wonder was able to answer correctly.

During the problem-solving activity, the teacher–interpreter dictated to Stevie Wonder the problems posted on the board. Stevie Wonder wrote down the important given values in each problem using his Braille system and tried to solve them on his own using his talking-scientific calculator.

Stevie Wonder was able to answer the first two items out of three items correctly, but his two answers did not have the correct units. When the correct answers were written on the board, the teacher–interpretary told Stevie Wonder to write the correct units on his notes. The teacher–interpreter also dictated to him the solution for the third problem.

Case 02

The teacher–interpreter translated to Halle Berry the teacher's question regarding the piece of chalk that was shown to the class.

During the discussion proper, Halle Berry copied lectures and some illustrations written on the board.

The teacher–interpreter translated to Halle Berry the teacher's question and asked her to give her own answer. She was able to answer correctly.

During the problem solving activity, Halle Berry copied the problems and tried to answer on her own. She was able to answer only one problem correctly when the teacher started calling on volunteers to answer on the board. And so Halle Berry simply copied the solutions for the two remaining problems.

Problems Encountered by the Exceptional Students in Learning Physics

It is general knowledge that Physics is perceived as a very challenging subject by most of the students. Many students think and say, "Physics is difficult." Ornek, et. al. (2008)^[6].

Stevie Wonder said,

"I like Physics whenever the topics are not dealing with higher numbers."

He further stressed that,

"(My major difficulty is in dealing with) large values in computation."

He also mentioned that although he likes laboratory activities, the fact that he can touch the materials being used and he can actually experience some of the phenomenon being studied, he does not like it at times because,

"It takes long hours for me to finish the laboratory report."

Halle Berry agrees with Stevie Wonder. She said,

"I don't like problem-solving in Physics. (It is) hard (because it has) many mathematical solutions and equations (to) memorize. (I) don't like board work activities (because it is) very hard (and I am) shy to recite."

Key Informant No. 1 disclosed that,

"For the hearing impaired, usually the major difficulties are on the mathematical and analytical aspect of learning. For the visually impaired, learning is difficult to achieve if no actual presentation or demonstration is done."

Key Informant No. 2 affirmed that,

"Exceptional students usually have difficulties in solving situational problems in Physics which need more analytical thinking skills. This is because of their limitation due to their impairment as visually impaired and hearing impaired students."

Problems Encountered in Teaching Physics to Exceptional Students

Key Informant No. 1 shared,

"Preparation is much required of a teacher handling exceptional students. You should make alternative learning activities to suit the needs of the exceptional students."

In addition to this, Key Informant No. 1 said,

"From time to time, I have to check with their teacher–interpreter on their problems encountered, as well as progress in the lessons discussed and other tasks and requirements given to the class. I also have to adjust the level of difficulty of some problem-solving activities and test items to suit the capabilities of the exceptional students. Most importantly, I have to make sure that enough time is given to them to finish assigned tasks."

Key Informant No. 2 also shared that,

"The Physics teacher is very considerate and lenient towards the exceptional students. She allows them to submit requirements even past due dates. She also considers their capabilities and acknowledges their limitations. She readily praises the exceptional students on simple accomplishments."

DISCUSSION.

Angell et al. found that students find physics difficult because they have to contend with different representations such as experiments, formulas and calculations, graphs, and conceptual explanations at the same time [7].

Redish explains why students describe physics as difficult. "Physics as a discipline requires learners to employ a variety of methods of understanding and to translate from one to the other--words, tables of numbers, graphs, equations, diagrams, maps. Physics requires the ability to use algebra and geometry and to go from the specific to the general and back. This makes learning Physics particularly difficult for many students [8]."

Williams, *et al.* as cited by Soong, et al. stated that in a survey secondary students who are not interested in studying Physics found that the main reason offered by students is that they perceive physics to be a difficult/hard subject. Students find physics hard essentially because they have difficulties in solving physics problems [9].

Being patient, lenient, and considerate is among the traits summarized and further enhanced in an Occupational Outlook Handbook, 2011 USA edition, which states that, "Teachers handling exceptional students must be organized, patient, able to motivate students, understanding of their students' special needs, and accepting of differences in others. Teachers must be creative and apply different types of teaching methods to reach students who are having difficulty learning. Communication and cooperation are essential skills because special education teachers spend a great deal of time interacting with others, including students, parents, and school faculty and administrators^[10]."

CONCLUSION.

There were only two cases of exceptional students enrolled. One male, 22 years old with hearing impairment, and one case of female, 19 years old with vision impairment. They were older compared to the regular students, this is because of the health conditions of exceptional students which

sometimes become the reason for them to incur several absences and sometimes to the extent that they stop schooling for a while.

The creation of more alternative learning activities, time constraints, great patience, and special attention to be allotted to exceptional students are some of the common problems encountered by teachers in teaching Physics to exceptional students.

Exceptional students have limitations in the classroom such as they prefer discussion on the conceptual part over computations where analytical thinking skills are much required and they need longer time to accomplish required tasks and answer exams. They also have limitations when it comes to physical activities.

In this light, exceptional students should be aware that they are no less than regular students, that they have a fundamental right to education, and that they are very much welcome in the regular classroom. They should know that along their unique characteristics and learning needs are interests, talents, and abilities and that when these are properly harnessed and nurtured can lead them to achieve and succeed in life just like any other regular student.

Above all, patience, awareness of the special needs of exceptional students, and acceptance of them as an integral part of the regular classroom will be the main key to a deeper understanding of the exceptional students as learners, thus, providing effective learning.

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