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Breach control method on-board oil tankers

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Abstract

Hull damage could cause enormous total losses in lives and properties, in addition to severe environmental hazards. It is an object of the proposed system presented in this paper to provide a movable hull's hole closure device which could be easily installed and positioned over the hull hole. The closure is done using a fabric sheet deployed from the main deck, down to the keel, passing under the bottom, then up to the other side of the hull. This process is done mechanically using wire ropes. Wires are attached to a roll in a cylinder mounted on a carriage which movable on the deck alongside the edge of the vessel. The ends of the wires securing lines can be pulled and rolled on a drum positioned on opposite side of a ship. Damage cases were suggested, followed by numerical simulations for these cases to solve for the appropriate width and thickness of the wrapping material that would be able to secure the water tightness of the ship and withstand the ship's draft hydrostatic pressure.

Keywords: Damage control; Oil spill; Collision; hull damage; ship wrapping; Kevlar 49; FEA; Rubber

Introduction

All Losses; including loss of cargo and pollution, resulting from accidents occurring in a body of water have historically been a problem for marine vessels including tankers, barges, and other ships. Marine vessels accidents include groundings, collisions, ramming, structural failures, and explosions. If a breach occurred through a cargo vessel because of an accident, the internal cargo is susceptible to discharge out to the environment, especially if the cargo is a liquid such as oil. Discharge of oil to an environment such as an ocean often ensues damages that need costs, and penalties to be applied, not to mention the value of the lost cargo. Minimizing the out flow of cargo into the environment diminish the pre-mentioned consequences. Moreover, uncontrolled damage to a vessel can have adverse effects on its stability; furthermore sinking of such a vessel is indeed. It's not easy to take the proper decision at the moment of an accident as the chosen survival technique will be critical for the lives and cargo onboard. With a ship that has a rescue system that can respond to a collision damage regardless the location and extent of damage, the rescue technique is known and no effort or time is needed for taking a decision.

Previous efforts were made to keep a damaged hull afloat. Some devices were patented for urgent repairs of ships' hulls to avoid sinking Kronhaus [1], Gerardi [2], and Cox [3] each deploy covers to control an opening in the hull. Those covers eliminates the flooding of water into the vessel. Blumberg's [4] device has quite similar approach, but with a mattress that has a hose to pump water out of a bilged hull. Buce [5], McDuff [6], Kozloff [7] had chosen patching methods as well to close a hole in a ship's hull. These patches covers a limited local area around the hole. Some of them are inflatable, which triggers worries about the up-thrust

forces on such patches. Such a problem was bypassed by Cloutier [8] as he added a wire net to secure an inflatable bladder patch against the hull. Cunningham et al [9] suggested an unmanned remotely operated vehicle to detect an opening in the hull and apply a patch to secure the opening. VanDerryt [10] patented a shaft with a spring-loaded rod, where the spring is activated causing the rod and piston to move, which deploys the levers and unfolds a seal to cover a hole temporarily. The deployment of the patches requires relatively long time as they need preparation and extensive manual work, also the poor manoeuvring properties of such patches add more efforts to their application process for accurate placement. On the other hand, symmetrical devices that extend under the ship's keel tend to ignore many of the obstacles that patches confront.

An electromagnetic flexible sheet launched from an external device was suggested by Riddell [11]. Electromagnets are embedded within the layers of the sheet to ensure the sealing of the hole by magnetic forces between the hull and the sheet. Holt [12], proposed using a flexible sheet to wrap a part of the hull from one side to another side covering the hole, and secured by longitudinal and transverse straps. Inflatable bladders; filled with high pressure air, are used to fill in the gaps between the hull and the sheet, in addition to bladders which secure the hull's opening. Gwinn [13], Sandlofer [14] both mechanically deploy a wide sheet of waterproof material from a roll in a protective housing on the deck. This sheet covers the ship around the hull from bow to stern except the propeller side, meanwhile, dehydrated materials are used to assist in absorbing fluids. Thus securing the opening. Beyrouty [15] displayed a container that has oil sorbents that could be released at the time of oil leakage in addition to releasing an oil boom from bow to stern in order to contain the leakage and absorb it. Dickie et al [16] also extend a boom around a bilged hull to control oil leakage.

It is an object of the present system to secure openings in the hull of a marine vessel in all loading conditions. It is another primary object of the subject system to provide an apparatus that could be easily implemented into existing ships without significant need to alter procedures, such a system that could degrade oil spillage risk of a breached cargo tank. It is a further object of the present system to provide a hull hole closure seal for vessels with concave or irregularly shaped hulls which might not be receptive to patching.

1. System usage

The present system relates, in general, to devices for the marine vessel damage assessment, as well as temporary repair of damage in ships' hull, and is directed more particularly, to a device and method for reducing and preventing sea water from flooding into the hull and sinking the ship, or cargo to leak out of the cargo hold, when the ship is ruptured beneath the water line.

The present system discloses covers used to encase an opening in the hull of a marine vessel. These disclosed devices are designed to prevent water from entering the vessel. And closes openings in the hull of a passenger, tanker, barge, or other similar structure, through the use of coverings for the exterior of a ship's hull, to keep a damaged vessel afloat and prevent it from sinking. This device is offering a unique capability; compared to the pre mentioned patents, as the applied wrapping material is on a movable carriage, this feature creates a flexibility in the application, less deployment time and, optimization in weight and cost of such a temporary repair device.

2. Operation description

Figure 1, illustrates the rupture sealing mechanism in use, there is shown a marine vessel that is stopped in the water. A remotely operated system for sealing the vessel opening is stored aboard the vessel at all times for an immediate response to an accident. Referring to the drawings, a ship having a metal hull in which a hole or opening has been ripped resulting from a collision or the like. The flexible covering means comprising this system is shown secured to the outer surface of the metal hull and covering the jagged hole to restrict or stop the flow of a liquid lading there from, such as oil.

The device has wheels mounted on a frame in order that the device can be moved backwards or forward alongside the hull of the vessel. It should be understood that the wheels can be replaced by tread as on track or halftrack vehicles and that said tread or wheels can be connected to the power means for selectively moving the wheels or tread to assist in positioning the apparatus relative to the opening in the ship. As known in the art, the power means of the wheels or tread can be controlled by lines passing from the power means to the deck of the ship or other remote locations or by remote control apparatus, moreover, an automatic control system can be applied.

The wrapping material is a fabric of a high tenacity that is impermeable to water such as rubber or fibrous fabrics. It is also preferred to be a hydrocarbon resistant material. This material is wound around a roll or reel having end support for lowering alongside the outer surface of a metal hull. A motor is provided for winding and unwinding the roll. The fabric should be adjacent to the ship's hull following the hull's profile to ensure the water tightness of the hull after applying the sheet.

Figure.1 shows flexible wrapping material of a general fabric secured to a hull and having a lower end, parallel sides, and an upper end on a roll. Suitable straps attached to end for securement about the hull. Means to release and propel straps beneath hull to the opposite side thereof upon securement of flexible material on the hull with straps being pulled taut and rolled on a drum from the opposite side of the hull to additionally secure the fabric on hull, such as might be required in the event of a malfunction of power sources. In the method of this system, the sealing element is positioned over an opening in the vessel that is desired to be sealed. The ends of the four securing lines can be pulled and rolled on a drum positioned on opposed sides of a ship and the lines and sealing element lowered into the water with the lines at a lower elevation than the ship keel. The operators can then move the drum along the ship edges until the sealing element is adjacent to the opening. The ends of the lines can then be secured with the desired tension. This construction is particularly advantageous where the opening may have a sharp jagged edge which might rupture the sealing element. Although the apparatus of this method has been described as having only four securing lines, it should be understood that there can be a multiplicity of lines for more securely attaching the sealing element to the vessel. Electromagnetic wires are installed at the ends of the wrapping material to seal the cover tightly on the vessel's hull.

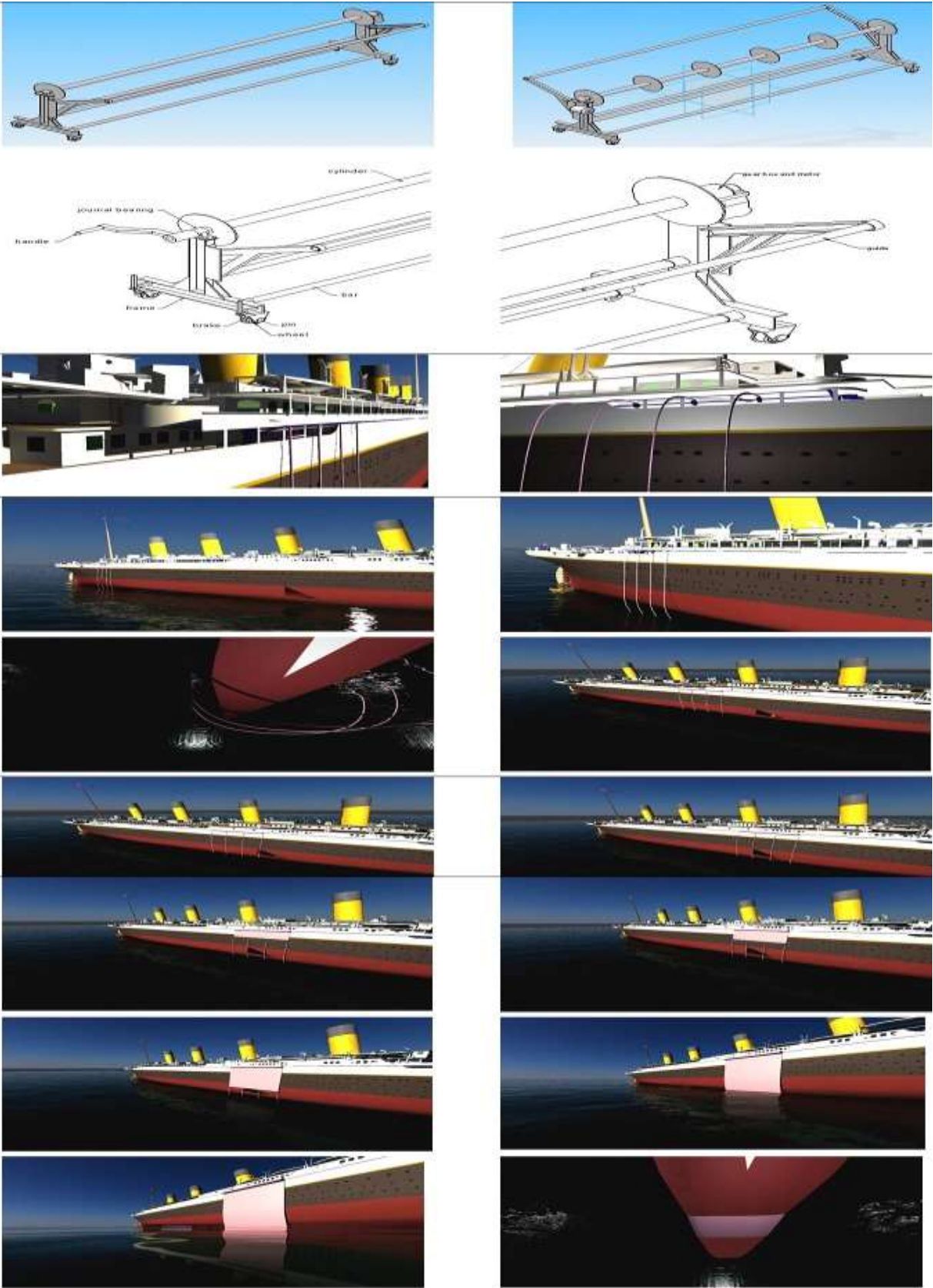


Fig. 1 operation sequence

It's crystal clear that the accurate positioning of this proposed system is not crucial, because of the fact that the wrapping material will be wide enough, and folded around the

hull from port to starboard. So comparing the current system with a patch-oriented system; thanks to the wrapping symmetry, no hydrostatic pressure will force the wrapping sheet to take off the hole, in contrary, it will assist in the wrapping process. While patches might float or even sink in case of using a high-density patching material. Marks are preferably made on the right and left outer edges of the deck in order to permit the synchronization between the drum and the cylinder and to assure more exact positioning of the lines and sealing element.

By providing ships at sea with this system, it can be quickly installed for an immediate response over an opening in the vessel and thereby provide means for preventing serious environmental hazards, and loss of aquatic life and vegetation. It is contemplated that if all ships had such apparatus continuously available, that the adverse effects of pollution could be drastically reduced. Further, prevents sea water from flooding into the hull and sinking the ship.

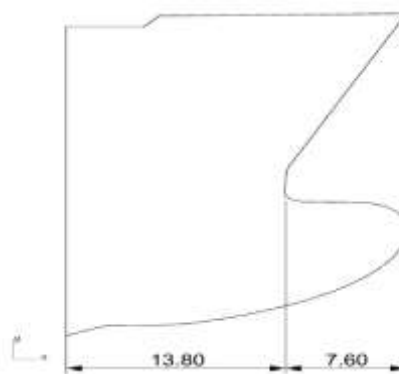


Fig. 2 Al Manamah Bulbous bow

3. Numerical simulation

Testing the proposed system is vital to its applicability, so typical testing approaches were used. First, numerical simulations were carried out to test the proposed material through the assumed opening based on a worst case scenario, afterwards, an experimental model testing will be done relying on numerical simulations outcomes. This study is presenting the effectiveness of the wrapping material to withstand underwater pressure and to seal the opening of the ship's hull that occurred because of the collision. So, a Finite element analysis (FEA) software Ansys 17.2 is used to solve for the material required thickness and suitable width for the proposed application.

3.1 Damage scenarios:

The proposed system was simulated numerically considering 2 damage scenarios through full load condition to estimate the worst working circumstance that a system can operate through. Figure.2 shows a model of Suezmax(157.5K) class double hull oil tanker midship compartment, which used as a model to test the wrapping technique. The ship has principal dimensions of 272m overall length, 48m of breadth, 23.7m as depth, and sailing on 16m draft. Al Manamah container ship was used as a striking ship with its bulbous bow, this container ship has principle dimensions of 306m overall length, breadth of 40m, and a depth of 24.5 meters that sails on a draft of 14 meters.

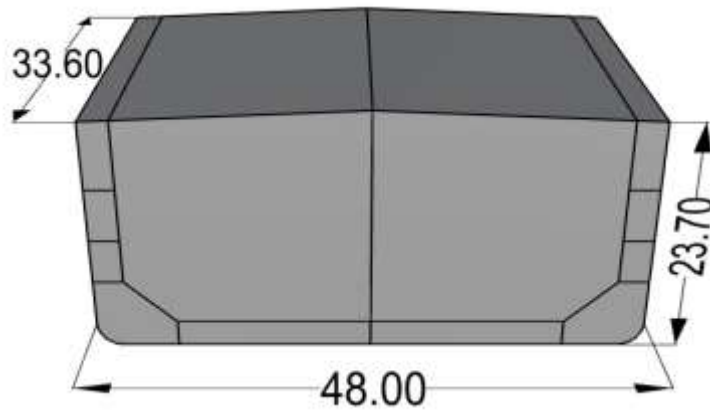


Fig. 3 Double hull tanker model

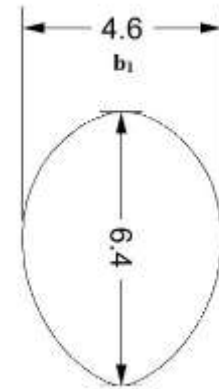


Fig. 4 Hull's hole geometry

3.2 The first scenario

The bulbous bow of the container ship shown in figure.3 is to hit the tanker ship with 90 degrees at one of its parallel middle body tanks, led to an opening in the outer side shell with a simplified geometry shown in figure.4 The extent of damage in the first damage scenario is 2.44 m from the side shell inwards the centre line. The cargo tank is still intact and no oil leakage has taken place. The wing tank at the damaged side is open and has no water in it. The damage is assumed to take place at the deepest point on the side of the hull right at the edge of the bilge keel to ensure the application of the maximum hydrostatic pressure force on the material. The first scenario could occur in real life after applying the system and pumping out the seawater filling the wing tank Figure.5 summarizes the first scenario

3.3 The second damage scenario

The bulbous bow of the container ship is to hit the tanker ship with 90 degrees on the starboard side at one of its parallel middle body tanks. The extent of damage in this damage scenario is 3.5 m from the outer side shell towards the centre line which led to two openings; one through the outer side shell and the other through the cargo tank. The opening at the outer shell has the same geometry as the first scenario as an opening area of 21.2 m² while the inner opening has an area of 10.8 m². Figure.6 displays the damaged areas during the second scenario.

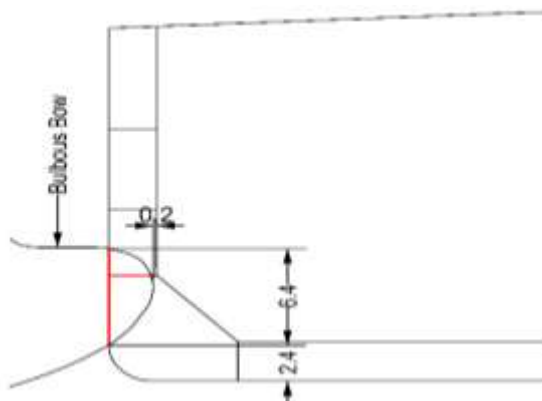


Fig. 5 First damage scenario

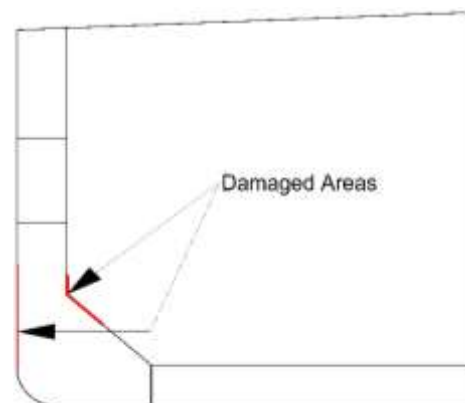


Fig. 6 Second damage scenario

3.4 Boundary conditions

In both scenarios, the hydrostatic pressure of seawater is applied on the outer surface of the hull including the wrapping material. This pressure equals to 16 m of water depth. Also in both scenarios, the bottom plate of the hull and the adjacent wrapping material is fixed.

Through the first scenario, air is considered to be filling the wing tank, at which its static pressure on the other side of the wrapping material can be neglected. While in the second scenario, a mixture of oil and water is considered in the tank after a fixed period of time. The pressure of that mixture is to be applied on the inner side of the wrapping material. To calculate such mixture quantity and pressure, some formulas were recommended to use by Tavakoli, et al [17] in order to calculate the height of each fluid in the tank and its flow rate as a function of -time through three phases of oil leakage as expressed by the previously mentioned authors, they had examined a case study to verify these formulations in comparison with numerical CFD analysis. Their case study outcomes are displayed in figure.7. The height of the remaining oil in the oil tank through the first phase can be calculated as following :

$$h_{o1} = \frac{C_{d1}^2 S_1^2 g}{2A_t^2} t_{o1}^2 - \frac{C_{d1} S_1}{A_t} \sqrt{2g(H_{o1} - h_h)} t_{o1} + (H_{o1} - h_h) \quad (1)$$

C_{d1} : Coefficient of discharge through the hull plate opening.

S_1 : Hull plate opening area.

A_t : Cargo tank surface area.

H_{o1} : Initial oil height in cargo tank

h_h : Opening height.

While its quantity can be known as a function of time solving the following formula as:

$$Q_{o1} = -\frac{C_{d1}^2 S_1^2 g}{2A_t} t_{o1}^2 + C_{d1} S_1 \sqrt{2gH_{o1}} t_{o1} \quad (2)$$

While the height of the oil in the wing tank can calculated as:

$$h_{uo1} = -\frac{C_{d1}^2 S_1^2 g}{2A_t A_u} t_{o1}^2 + \frac{C_{d1} S_1 \sqrt{2gH_{o1}}}{A_u} t_{o1}$$

Finally, seawater in wing tank can be determined using the following equation::

$$h_{uw1} = -\left(\frac{C_{d2} S_2}{A_u}\right)^2 \frac{\rho_{ow} g}{2\rho_w} t_{uw1}^2 + \frac{C_{d2} S_2 \sqrt{2g(d - h_h)}}{A_u} t_{uw1} \quad (3)$$

C_{d2} : Coefficient of discharge through the cargo tank opening.

S_2 : Surface area of cargo tank opening.

A_u : Surface area of wing tank.

ρ_{ow} : Density of the mixture in the wing tank.

ρ_w : Seawater density.

d : Draft of damaged ship.

The first phase is terminated as soon as a hydrostatic balance is attained between the mixture in the wing tank and the seawater, or a balance between the mixture pressure and the oil remaining in the oil tank.

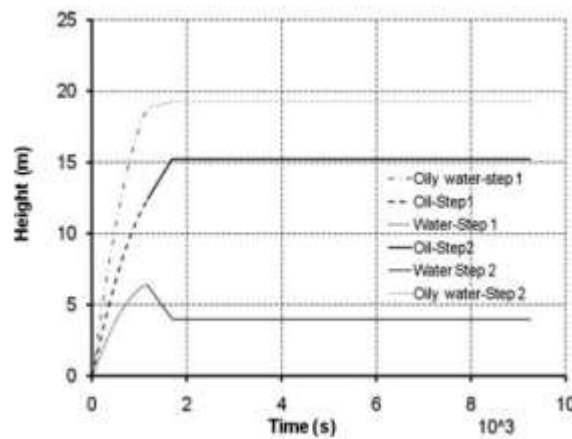


Fig. 7 The height of fluids at each vicinity of a tanker by Tavakoli, et al[18]

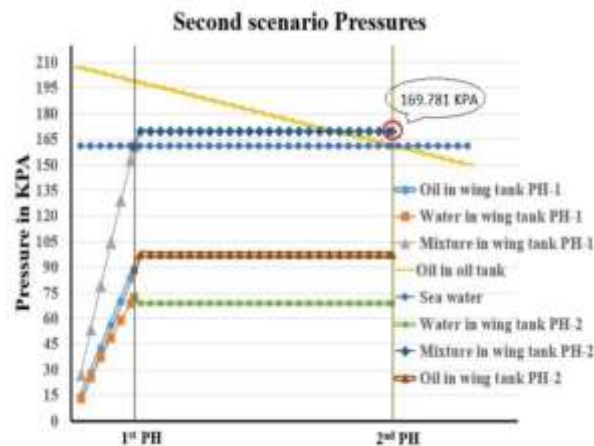


Fig. 8 the pressures at each vicinity through different flooding phases.

While the second phase is terminated at the moment of a second hydrostatic equilibrium takes place. Through the current study, the wing tank mixture engages a hydrostatic equilibrium first with the seawater pressure through the first phase, after some more time the oil pressure in the oil tank, the mixture in the wing tank, and sea water all experience a second hydrostatic equilibrium through the second phase. During the third phase, no change in the height of the mixture inside the wing tank, while oil leaks to seawater due to the difference in relative densities between the fluids. Figure.8 shows the obtained pressures through each phase and

the selected pressure for investigation. The examined model consists of only the tank compartment that has been opened from its side as a 2-D Rigid body and the wrapping material as 2-D shell elements covering parts of the tank's sides. Figure.9 displays the CAD model of both the compartment and the wrapping material. The compartment width equal to

$$N = \frac{t - D_o + \sqrt{(D_o - t)^2 + \frac{4tL}{\pi}}}{2t}$$

33.6 meters while the wrapping material width varies; centred on the compartment mid length. Also, the thickness of the material used is investigated for each investigated width. The thickness of the material is important for the system as it will sum up the total weight of the material, which must be as minimum as possible. Moreover, the diameter of the roll to be held on board will be determined based on the thickness of the material. The diameter of this roll should be suitable for rewinding and moving along the rails taking in consideration the service aisles onboard the tanker deck. The diameter of the roll can be determined using the following formulation. First, by knowing the length of material needed, its thickness, and the inner roll's core diameter, the number of turns could be deduced as:

(4)

t : Material thickness.

D_o : Inner core diameter of the roll

L : Length of the material to be wrapped.

Afterwards, the total diameter of the roll can be calculated using the following formula as:

$$D = 2Nt + D_o \quad (5)$$

Table 1 Summary of the investigated cases

Scenario	Material	Wing tank	Cargo tank	Tanker's draft	Outer shell	Inner hull shell
1st (outer shell damage)	Kevlar 49	Void- has no liquid	Intact and fully loaded	16 m	Damaged with a 22.1 m2 opening	Intact
2nd (outer and inner shell damaged)	Kevlar 49	Mixture of oil and sea water	Damaged and leaking oil	16m	Damaged with a 22.1 m2 opening	Damaged with a 10.7 m 2 opening
	ContiTech Rubber	Mixture of oil and sea water	Damaged and leaking oil	16m	Damaged with a 22.1 m2 opening	Damaged with a 10.7 m 2 opening

The width of the material is vital for the system as the wrapping material should be wide enough to cover the opening tightly and avoid the risk of squeezing all the material inside the targeted hole due to the hydrostatic pressure inwards or outwards the tanker's hull. Also, the width should not be too wide to enhance the mobility of the system onboard the ship. So the width of the material should be optimized taking into account both considerations. Table.1 summarizes all the cases investigated in this study.

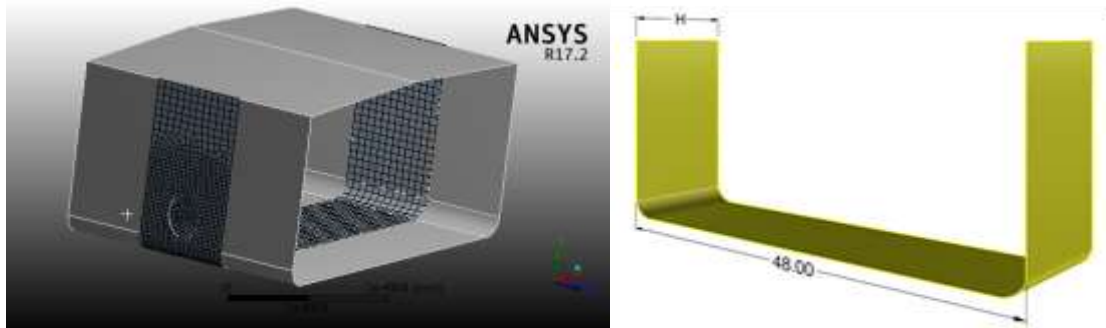


Fig. 7 CAD model of the wrapping material and the tanker

3.5 Mesh

The tank and the material were meshed with a structured mesh, utilizing higher order quadrilaterals elements. The material is 2-D surface and the compartment was considered a rigid body. Different mesh sizes were used various regions; at the opening, a finer mesh was applied as it's the area of interest as shown in figure.10. The Hull body and the material surface do have an element size of 1000mm while the element size validity at the opening was investigated through a mesh sensitivity analysis and 500mm element size at this spot was selected as the most efficient element size regards solution quality and computation time for this region as shown in figure.11 and figure.12

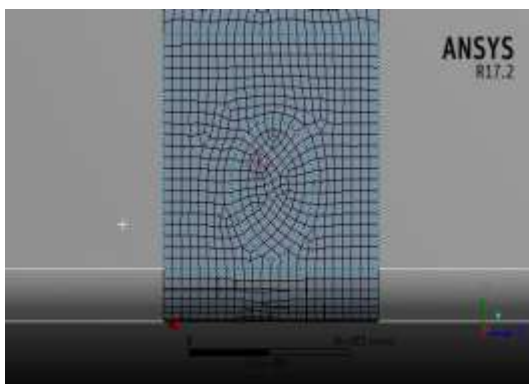


Fig. 8 Fine mesh area

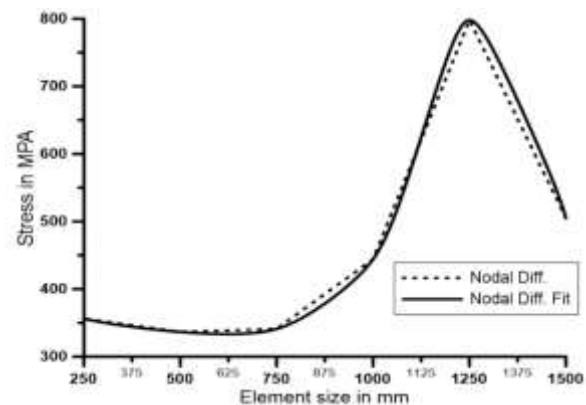


Fig. 9 mesh sensitivity analysis using nodal difference

Frictionless contact between the wrapping material and the tank was used in the damage scenarios as in a static position after applying the system, the tangential relative motion between the hull and the wrapping material should be minimal, and at the same time, the wrapping material is set free to move in a lateral direction.

3.6 Materials' properties and models

Two materials were investigated using a numerical FEA solver. A special type of rubber used in fuel tanks from Contitech© company and Kevlar® woven fabric from DUPONT© company. These materials are well-known with their high strength and water repellence.

Material Name	Tensile strength (MPa)	Young's Modulus (GPa)	Toughness	Ultimate strain	Poisson's ratio
Kevlar®49	1748	117.2	32.4	0.0223	0.36

Table 2 Mechanical properties of Kevlar® 49 by Zhu et al [19]

3.6.1 Kevlar® 49

Kevlar® 49, is an organic fibre in the aromatic polyamide family. It's well known with its high tensile strength and toughness, where it's broadly used in aviation and marine applications. Kevlar is stronger than steel for the same weight ratio, in addition to its extended flexibility. The Kevlar® 49 fabric has a density equals to 1.44 g/cm³. Table.2 summarize the mechanical properties of Kevlar® 49 as presented by Zhu et al.[18].Kevlar material is modelled in ANSYS software as a linear material because the working stress range should be within the linear range. The full stress strain curve of Kevlar can be seen on figure.13 based on experimental results of Zhu et al. [18] the working region of this simulation is focused within the linear range of the curve.

3.6.2 ContiTech© Rubber

Rubber is considered an elastomer, which has high elastic strain properties; consequently, it deforms excessively. A special rubber product is produced by ContiTech© company to be used as collapsible fuel tanks for hazardous fluids as diesel fuel and extra light fuel oil. These rubber tanks are reinforced in one direction with a fiberglass scrim. The ultimate tensile strength of this material is 85 MPA through a loading direction normal to the fiber direction. A uniaxial test was carried out by Kubiczek, et al. [19] This test has revealed some mechanical properties for such a material, which have been used in this current study as key properties for the material model to be embedded in the solver. The stress-strain curve for this test can be seen in figure.14. A two equation Mooney-Rivlin material model has been selected for defining the material. All two parameters needed for definition were applied as advised by Kubiczek, et al.[19] as $A=0.042$, $B=0.035$. The material model was verified numerically using the available stress-strain curve.

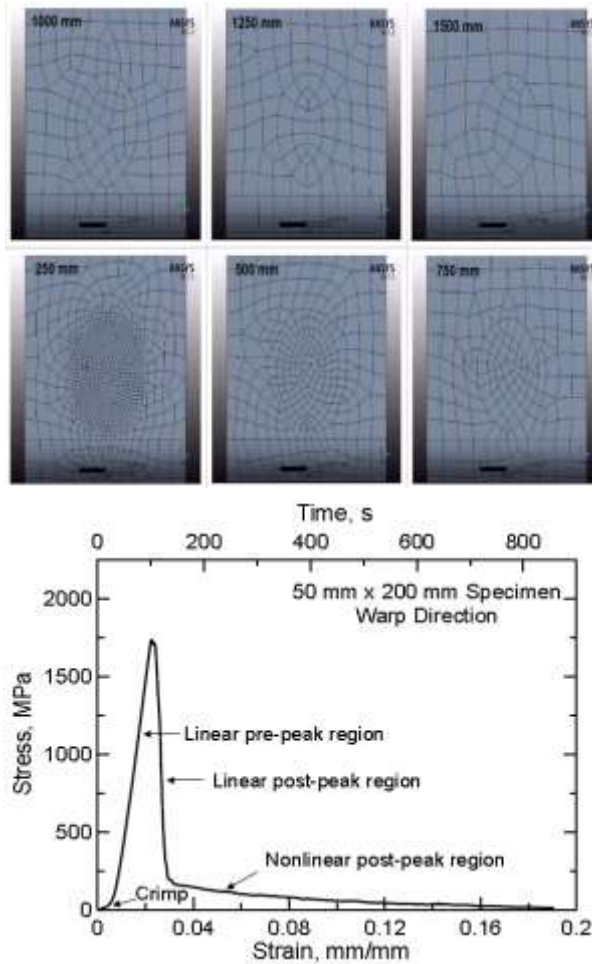


Fig. 10 mesh sizes used in the mesh sensitivity curve by Zhu et al [19]

Fig. 11 Kevlar® 49 stress-strain

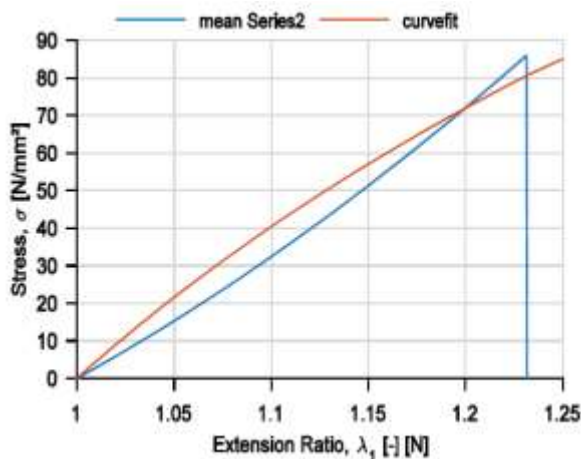


Fig. 12 Rubber stress-strain curve by Kubiczek et al [20]

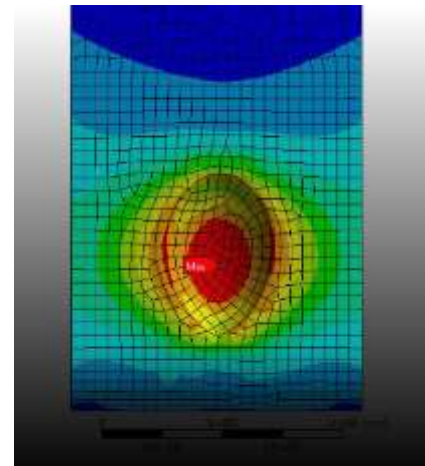


Fig. 13 Area of maximum stress

4 Results

After solving fifty-four cases with three H/b1 ratios, and three different thicknesses for each H/b1 ratio through 2 damage scenarios, the following observations are considerable to mention. The first scenario simulation revealed that Kevlar can't with stand sea water hydrostatic pressure with a single layer of material which equals to 0.254 mm along all the

investigated H/b1 ratios. While double and triple layered Kevlar seems to be safe in terms of strength. The maximum stress occurred at the center of the opening for all investigated cases as shown in figure.15. Only a slight change in maximum stress took place through the investigated H/b1 ratios for each thickness, except the triple layered Kevlar equals to 0.762 mm, has a relative higher change in maximum stress through different H/b1 ratios, where 2.1, 2.6, 3.1 H/b1 ratio experienced maximum stress equals to 935.5 MPA, 893.42 MPA, 887.4 MPA respectively. The triple layered Kevlar was the least deformed between all other thicknesses with a range of deformation between 304 mm to 312 mm as seen in figure 16. Stresses of the first scenario can be seen in figure.17. The First scenario shows that the wrapping material could seal the opening tightly, with a material penetration up to 454.33 mm inside the hole. Figure 18 displays such deformations. The material is sealing the edges of the opening, as the results of the simulation shows a zero geometrical gap between the wrapping material and the ship's hull at the edges of the opening. Strains were slightly decreasing by increasing H/b1 ratio just like stresses as observed in figure.18

Through the second scenario, both Kevlar and Contitech rubber were applied and compared. A single layer of Kevlar was able to with stand both oil and water hydrostatic pressures till H/b1 ratio approximately = 3, which is clear in figure. 19, meanwhile double and triple layered Kevlar bore the applied pressures through all the examined H/b1 ratios. Looking to Rubber stresses, it's obvious that a 1mm thick rubber will not be able to with stand the hydrostatic pressures along all the proposed H/b1 ratios, also it's worth mentioning that the curve trend of the 1-mm rubber shows that the material could survive the stresses without failures, at the same time, the risk of water flooding around the edges into the wing tank is very high. A 2-mm thick rubber would uphold the pressure till H/b1 ratio equals to 3.05. The later thickness failed at H/b1 ratio= 3.1, on the other hand, rubber with 3-mm thickness did have good safety margin against failure. The maximum stresses occurred on the 3 mm rubber layer through 2.1, 2.6, and 3.1 H/b1 ratio were equals to 53.37 MPA, 69.65 MPA, and 64.14 MPA respectively. Strains on figure.20 reflects the same observations as the stresses.

Figure.21 shows all deformation maximum values that took place through the second scenario. The negative sign on the Y axis of the lately mentioned figure indicates that the deformation is latterly outwards the ship's hull, which means that through all the 2nd scenario trials there is a geometrical gap between the wrapping material and the hull. The maximum deformation outwards took place when a 1 mm rubber layer applied, it was equal to 4977 mm at 3.1 H/b1 ratio, on the contrary, the least maximum deformation was done by a triple layered Kevlar logging 450.63 mm at 2.1 H/b1 ratio. The deformation shape of the 2nd scenario cases can be seen in figure., all the cases have a similar shape but with different deformation range. It has been noticed that apart-of a single layered Kevlar at H/b1 ratio= 3.1, all deformations of the second scenario are larger than deformations of the first scenario, at the same time deformation values increase through both scenarios as H/b1 ratio increases.

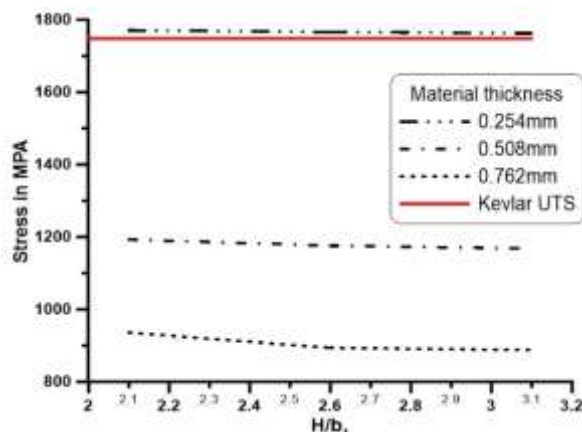


Fig. 16 stresses of the first scenario VS H/b_1 for various thicknesses

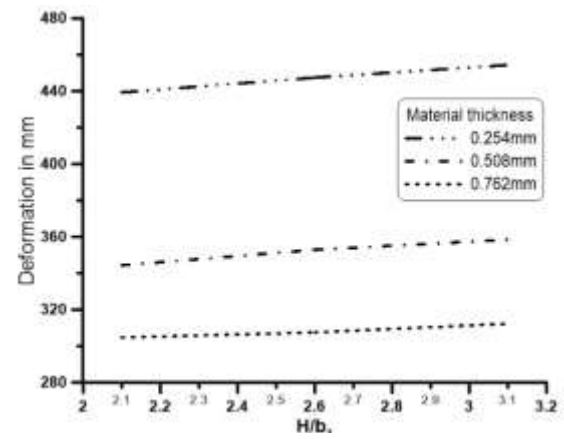


Fig. 17 deformations of the first scenario VS H/b_1 for various thicknesses

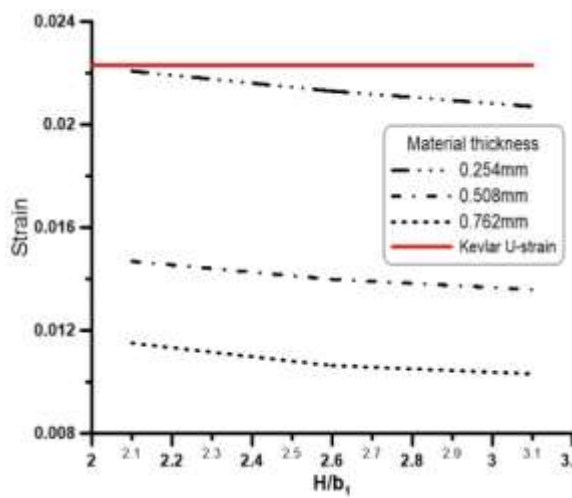


Fig. 18 strains of the first scenario VS H/b_1 for various thicknesses

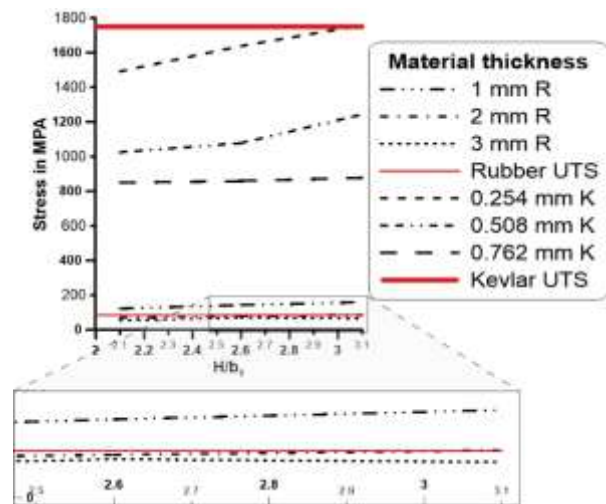


Fig. 19 stresses of the second scenario VS H/b_1 for various thicknesses

5 Conclusion

For the investigated case; as a worst case scenario many points should be mentioned. Only a doubled layered Kevlar could be used. A single layer won't withstand the pressure, and 3 layers would lead to unbeneficial weight on-board the vessel. 2.6 H/b₁ ratio was suitable to the current application with the predetermined thickness. The edges of the material are vulnerable to leaking liquids. It's recommended to use magnetic edges fitted on the material, to stick on the hull after wrapping the damaged area as similarly used by Riddell [12]. Rubber proved to deliver better water tightness but, thicker sheets are needed to bear the pressures, leading to heavier and bigger rolls, as rubber has a higher density than Kevlar. The proposed system in this paper is a step towards an applicable solution in case of severe damage of doubled hull tankers or vessels, it combines the advantages of many previously published systems, in addition to the system mobility and put their disadvantages aside. The current system allows leakage contamination in very short time, allowing for pumping out flooding water and giving the crew members the option of patching the damaged area from inside. Future work will include an experimental test for both materials also a water-repellent coating sprayed over the Kevlar is to be tested as well.

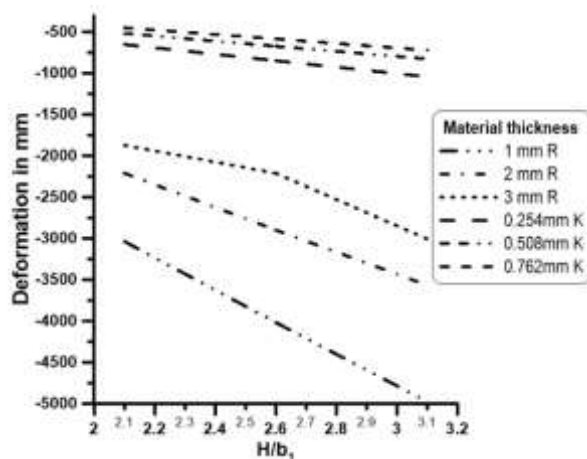


Fig. 20 strains of the second scenario VS H/b₁ for various thicknesses

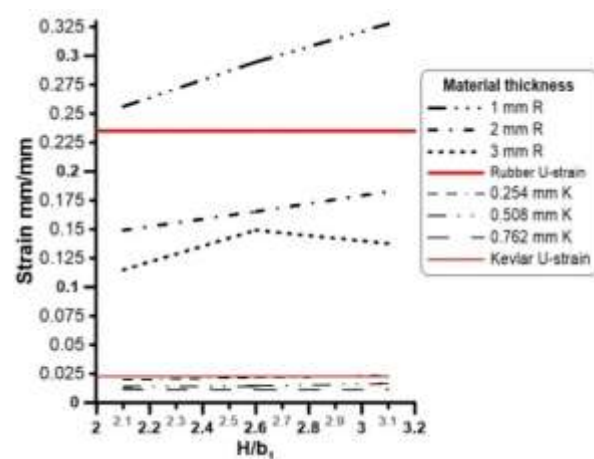


Fig. 21 deformations of the second scenario VS H/b₁ for various thicknesses

7. References

1. K. S. M. (1965) Ship preserver means. In: Google Patents.
2. Salvatore G. (1968) Boat-saving device. In: Google Patents.
3. Cox MA. (1977) Protective hull safety cover. In: Google Patents.
4. Blumberg R. (1926) Emergency apparatus for damaged ships. In: Google Patents.
5. B. W. F (1972) Apparatus and method for sealing a vessel opening. In: Google Patents.
6. McDuff GL, McCoy BG. (1987) Seal pac diaper. In: Google Patents.
7. Vassil RK. (1938) Apparatus for stopping leaks in ships. In: Google Patents.

8. Cloutier CC. (1979) Patch for ship hulls. In: Google Patents.
9. Cunningham CC, Gaudreau MPJ, Sigmar A, Hogan EM. (1998) Sealing openings in hulls of vessels. In: Google Patents.
10. VanDerryt SP. (2013) Device for temporary remediation of holes in ship hulls. In: Google Patents.
11. Riddell FA. (1993) Apparatus and method for covering openings in hulls of damaged ships. In: Google Patents.
12. Holt WT. (1991) Hull hole closure for an oil tanker. In: Google Patents.
13. Gwinn CM. (1993) Oil spill protector. In: Google Patents.
14. Sandlofer MI. (1993) Oil spill rapid response, containment and stoppage method and apparatus. In: Google Patents.
15. Beyrouthy L. (1991) On-board oil spill prevention and recovery system. In: Google Patents.
16. Dickie GM, Liles SL, Woldvedt AH. (1991) Spill containment system. In: Google Patents.
17. Tavakoli MT, Amdahl J, Leira BJ. (2012) Analytical and numerical modelling of oil spill from a side tank with collision damage. *Ships and Offshore Structures*. 2012/03/01;7:73-86.
19. Zhu D, Mobasher B, Vaidya A, Rajan SD. (2013) Mechanical behaviors of Kevlar 49 fabric subjected to uniaxial, biaxial tension and in-plane large shear deformation. *Composites Science and Technology*. 2013/01/24;74:121-130.
19. Kubiczek JM, Liang B, Molter L, Ehlers S. (2016) A Rubber Bag for Liquid Cargo to Improve Ship Collision Safety.V003T002A010.
20. Zhu D, Mobasher B, Rajan SD. (2011) Characterization of Mechanical Behavior of Kevlar 49 Fabrics. In: *Experimental and Applied Mechanics, Volume 6: Proceedings of the 2011 Annual Conference on Experimental and Applied Mechanics*. New York, NY: Springer New York. p. 377-384.
21. Ansys mechanical 17.2 user guide.

The Rolling Methods of Teaching

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A great variety of teaching techniques are being used in modern schools. There is no rigidity concerning this, because the educator chooses his technique to suit the occasion, the subject, the class and a number of other factors. There are number of methods of teaching as like,

1. Asking questions and answering
2. Illustration
3. Narration
4. Exposition
5. Description
6. Story – telling
7. Lecture
8. Text book reading
9. Explanation
10. Rolling Methods

In the education most of the teaching methods are explained very well, besides here we can add another method which called rolling method and we will explain it later.

The oldest and the most famous of the various techniques of teaching is Socrates method of asking questions and answering them. In this method the intelligent educator allows his pupils to express their own ideas, stimulating them to think by interposing questions in their recital.

The various reasons for asking questions are the following. When the teacher asks the questions to students, it provides motivation, locating the difficulties, to test their knowledge, participation, practice and repetition, encouragement of thinking and observation, increase self-confidence etc.

In the illustration method of teaching a subject is explained by providing examples of facts or experiences of which the educands are already aware. Process of this method is from known to unknown. The advantages of this method are as under (1) overcoming difficulties (2) encourage interest and curiosity (3) helps memorizing (4) mental practice etc.

One of the important method of teaching is verbal narration of some thing by the teacher. The success of the narration depends upon the educator's own power of expressions, his verbal facility, his gestures and facial expressions etc. Traits of this method like presentation style, engaging style, simple language, demonstration etc.

A.H. Garlik expressed the opinion that description implies the use words or symbols to represent some object. The descriptive method is effective in the following way (1) proper order (2) according to mental ability (3) appropriate language etc.

The most psychological method of teaching young children is to tell stories to them. Stories are definitely useful in the teaching of such subjects as history, civics, geography etc. The advantages of this method is following (1) satisfies curiosity (2) interesting (3) assists memory (4) entertaining (5) Inspiring, etc.

The lecture method is perhaps the most commonly applied technique of teaching in colleges and universities.

In this method the educator makes careful preparation of his subject and then communicates this knowledge to his class in the form of continuous monologue known as the lecture.

At every stage of education the most immediate of teaching is that the subject should be understood by the educand. At the university level and other institutions of higher learning this is the only method that is being used.

AT every level of education, certain text books are prescribed in the syllabus. These books from the basis of examination and it is considered to be the duty of the educand to memorized the subject contained in them. Consequently, educators resort to the reading of these books in the classroom doing nothing more than just reading through them and explaining the parts which appear, to them, to be difficult for the student to comprehend.

The word explanation is used in a variety of ways, for explanation of something may be in words or in full sentences. In order to be an expert an explanation, educators should keep in mind the following facts.

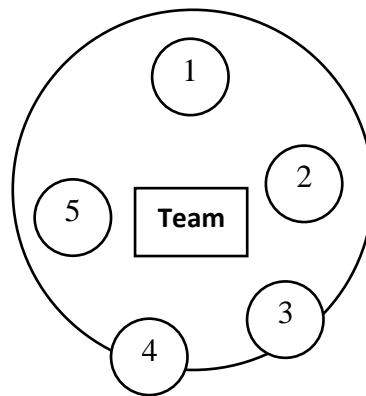
At every level of education, certain text books are prescribed in the syllabus.

Explanation should be relevant and proportionate, use simple language, remove of doubts, it should be natural etc. In general explanation is taken to mean the simplified presentation of a complex or difficult subject.

What is rolling method?

To turn over and over and move in a particular direction or to move smoothly to make something good. In ideal rolling method there should be maximum 20 students in the

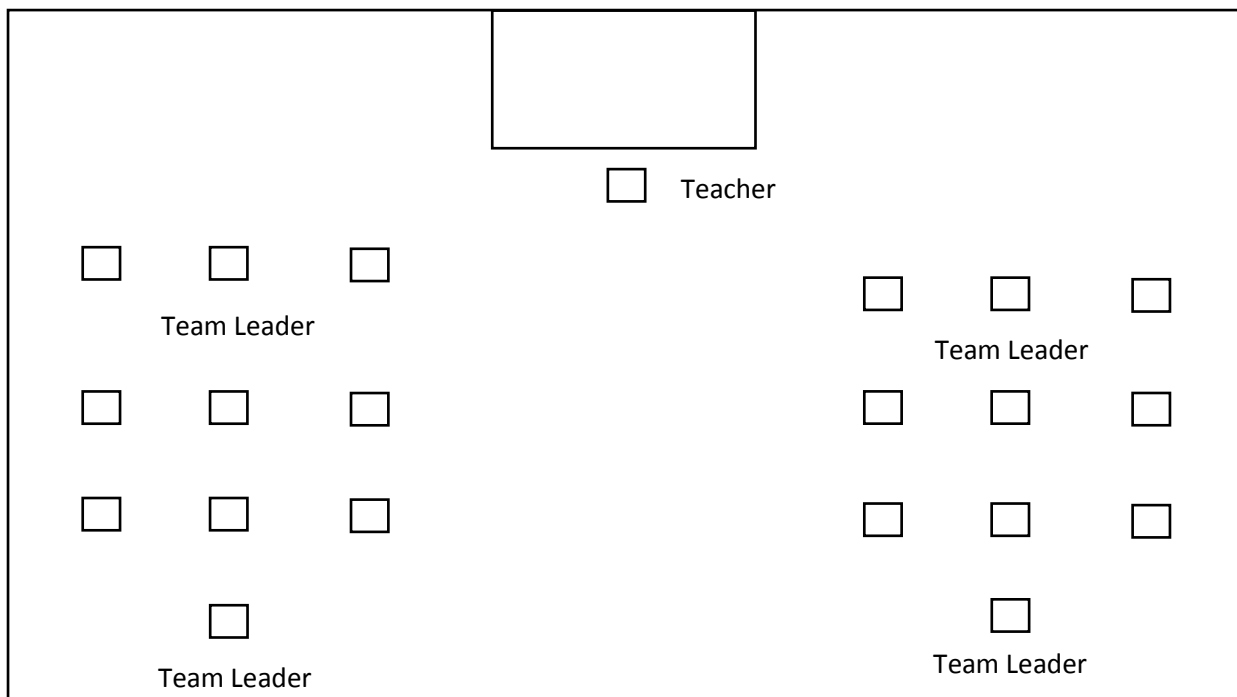
classroom. Then students should be divided in to five groups according with their intelligency and ability as following picture.



Every week there should be presentation in the classroom and team leader (intelligent student) will be present their subject. When team, leaders completed their presentation then the turn will be other students. Teachers should guide them each stage.

In the classroom siting arrangement will be made like, following.

Classroom



Essentials of following method.

- (1) Cooperation between team.
- (2) Cooperation with the teacher
- (3) Availability of suitable rooms.
- (4) Availability of instruments.
- (5) Willingness of students.
- (6) Proper Planning.
- (7) Useful for weak students.
- (8) Useful for slow learners.
- (9) Solution for shortage of teachers.
- (10) Accommodative environment.

References

1. S.S. Chandra and Other : 2007
Sociology of Education
Atlantic Publication,
New Delhi-110027.
2. Waller, Willard : 1932
The Sociology of Teaching,
New York : Wiley and Sons.
3. Mekeel, Scudder : 1968
Education Child Training and Culture
New York
Rinehart and Co.
4. Imball Solon T. : An Anthropological view of learning. In Social
Foundation of education. Current Readings from
the behaviour sciences (ed)
New York, Macmillan, 1966
Vol. 166, 271.
5. Patel, J.C. : 2007
The Role of Primary Teachers
A Sociological Study.
Parshwa Prakashan, Ahmedabad.

Psychological Self-Care Behaviors and Learning Happiness among Nursing Students, Boromarajonani College of Nursing, Ratchaburi

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Abstract

The purpose of this descriptive research were to study 1) the levels of psychological self-care behaviors and learning happiness and 2) the relationship between psychological self-care behaviors and learning happiness among nursing students, Boromarajonani College of Nursing, Ratchaburi, Thailand. The 516 subjects were 1st- 4th year-class nursing students in Bachelor of Nursing Science, academic year 2018. The research instruments consisted of questionnaire of Psychological Self- Care Behaviors and Learning Happiness. The reliability using Cronbach' s Alpha Coefficient were 0.82 and 0.86 respectively. Data were then analyzed for frequency, percentage, mean and standard deviation. The simple regression was used to analyzed the relationship between psychological self- care behaviors and learning happiness. The study results revealed that 1) the levels of psychological self-care behaviors and learning happiness were at the medium level (\bar{x} =3.05, SD=.35 and \bar{x} =3.46, SD=.38 respectively). Moreover, psychological self-care behaviors was positive related to learning happiness (R = .625, p <.001). The study findings can be used as basic information for administrators and instructors to provide activities or projects that promoted psychological self – care behaviors continually in order to enhance learning happiness for nursing students.

Keywords: psychological self-care behavior, learning happiness

Introduction

Nursing is a profession that emphasizes practice with nursing teaching both theoretical and practical in various courses So that nursing graduates can actually practice practical education therefore enhances the experience and develops various skills. To occur in nursing students However, with the age of nursing students, it is the period of adolescence towards early adulthood which said that teenagers range 18-20 Year is the age of being a student in higher education. That will be the most sensitive or insecure due to the change of role from adolescence to adulthood, there is a period of self-development to identity. leading to readiness to play a role and having a relationship with other people.

1st year-class students are students with social adjustment in various areas. Such as classes that are different from secondary education, relationship with senior, new friends social adjustment for self-reliance such as separation from the same family, staying with friends in the dormitory, compliance with university regulations and preparing to enter the profession. If students have an effective social adjustment they will have the stability to show their role appropriately. But if it fails, it will cause confusion about the role of self-feeling,

not self-confidence causing feelings of frustration and conflict in oneself or with others (Rew, 2011 cited in Kanokporn Ruangphemphun and Faculty, 2011)

As for the second year nursing students, there is a group of students who have more responsibility for learning. Because it is the practice of practicing in the ward of the student for the first time Although there is a learning process for nursing practice both in theory And then trial But when having to practice with patients, students will have stress (Kleehammer, Hart, & Keck, 1990) In addition, students have never had previous experience in caring for patients. There is still no confidence in the knowledge that has been trained. And must meet the atmosphere of the ward with images of illness Also need to practice nursing practice in various patients That is complicated And faced with the expectations of patients and relatives who want to receive quality and safe services. In addition, some students may not decide to study nursing by themselves. Resulting in lack of motivation in education (Asvini Nakanakham, 2008), while in the third year students, even though they have experienced practicing in nursing in various fields such as Adult Nursing elderly nursing care Community Nursing Pediatric Nursing. Allowing students to apply knowledge from various theories of science to practice nursing on the ward Development of nursing skills and attitudes for service recipients in real situations But from a pilot study by interviewing students It was found that academic nursing and adult nursing were students practice in clinical experience Which requires knowledge And more complex and specialized nursing skills causing students to have higher levels of stress Department of Obstetrics Nursing Is a specialized course in which students have the highest level of stress This is due to the situation of clinical practice training in obstetrics in the delivery room. Students face the environment that can not control Unexpected events (Sumalee Jumthong and Faculty, 2009) From the study of the happiness of nursing students Bachelor of Nursing Science Program Khon Kaen University (Amornrat Sikhamsuk Saito and Faculty, 2011) found that students with sufficient income for expenses were The average score of overall happiness was higher than those with income. Not enough to cover expenses and also found that voluntary nursing groups had scores of scores. The average overall happiness is higher than those who choose to study nursing. With unrelenting statistical significance From the study of the happiness of nursing students Bachelor of Nursing Science Program Khon Kaen University (Amornrat Sikhamsuk Saito and Faculty, 2011) found that students with sufficient income for expenses were The average score of overall happiness was higher than those with income. Not enough to cover expenses and also found that voluntary nursing groups had scores of scores. The average overall happiness is higher than those who choose to study nursing. With unrelenting statistical significance

And the methods that students use to manage when not happy Or when there is a top 5 suffering: 1) accepting one's own condition 2) optimizing the world 3) consulting a friend 4) trying to suppress emotions and 5) find a hobby to make yourself relax Therefore, the aforementioned factors result in a decrease in the students' happiness in learning, resulting in poor learning. Boredom in learning Resulting in low academic achievement Until having to resign midway on the other hand If students are more happy in learning, they will create good learning. Increase recognition ability And want to learn more (Thanapol Bandit and Faculty, 2017)

Research questions

1. Study pleasure of nursing students Boromarajonani Nursing College What level is Ratchaburi?
2. Psychological self-care behavior of nursing students Boromarajonani Nursing College What level of Ratchaburi?
3. The relationship between self-care behaviors in mental health And happiness in learning Boromarajonani Nursing College What level of Ratchaburi?

Research objectives

1. To study the happiness of learning And self-care behaviors in mental health Of nursing students Boromarajonani College of Nursing, Ratchaburi
2. To study the relationship between self-care behaviors in mental health And the happiness in learning of nursing students Boromarajonani College of Nursing, Ratchaburi

Research hypothesis

1. Samples with high learning pleasure have the ability to take care of themselves in

Scope of study

1. Content scope Happiness in learning and psychological self-care behaviors
2. The population of this research is Bachelor of Nursing Science Student Program of Boromarajonani Nursing College Ratchaburi, 1st-4th year, academic year 2018.

Research study period

March 2019 - May 2019

Research methodology

This research is a relational descriptive research aimed at studying mental health self-care behaviors. Additionally happiness in learning and to study the relationship between psychological self-care behaviors And happiness in learning Of nursing students at Boromarajonani College of Nursing, Ratchaburi

Research Instrument

Part 1 Personal Information Questionnaire Information consists of gender, education level Learning achievement, health status, income adequacy Family relationship Relationship with friends And reasons for choosing to study nursing

Part 2 Measurement of behavioral self-care behavior in mental health Which was created using the concept of mental health self-care behaviors of Chintana Yuanniphan (2534)

Part 3 Learning Happiness Using the Pattama Thongsom Temple (2010)

Tool quality inspection

The validity of the questionnaire (Reliability) The researcher used the modified questionnaire to test the sample with 30 samples from the Chakri Rat Nursing College. (Cronbach's Alpha Coefficient) not less than 0.71

Data collection

The researcher collected data by himself. With steps to collect data as follows

1. Proposing research proposals to the academic research committee And proposing the research outline to the research ethics committee To protect the rights of the sample group
2. Request approval to collect research data From the College Director
3. The researcher collected data by himself. By the researcher creating familiarity with the sample group And provide sample data Join the research project By explaining the purpose And benefits from research Ethical issues that the sample group should have to participate in the research project
4. Explain how to understand the questionnaire. And open the opportunity to ask questions for 1 day so that volunteers can think and think before deciding to participate in research
5. Give out the questionnaire and and make an appointment to submit the questionnaire. And consent to participate in research
6. Bring the questionnaire to check the integrity of the questionnaire.
7. Analyze data according to statistical methods.

Data analysis

1. Analyze quantitative data using statistics, percentage, mean and standard deviation.
2. Analyzing the relationship between learning happiness and caring ability

Self- mental health Of nursing students at Boromarajonani College of Nursing, Ratchaburi by using simple regression analysis

Ethical Consideration

The researcher concerned ethics in studying as follows;

1. To submit to the institutional ethics and research committee for research project approval.
2. To respect human rights of the subjects to participate with their willing, to explain the purpose, operation of studying including the opportunity to clarify for understanding and feel free to accept or reject to answer the data and assured that there was no impact to them.
3. The data were secretly kept and recorded by code without direct identifying the detail of the subjects.

Results

Table 1 Number and percentage of students classified by personal data (n = 516)

item	Number	Percent
Gender		
Male	19	3.68
Female	497	96.32
Year-class study		
1 st	149	28.88
2 nd	87	16.86
3rd	137	26.55
4th	143	27.71
Grade		
0.00-1.99	5	0.97
2.00-2.49	113	21.89
2.50-3.00	261	50.58
3.01-4.00	137	26.55
1 week life-event induced stress passed		
none	228	44.19
have	288	55.81
Physical health		
strong	478	92.64
Health problem	38	7.36
Item	Number	Percentage
Family atmosphere		
Apart	11	2.13
Mostly quarreling	2	0.39
Sometimes quarrel	56	10.86
Good love	447	20.35
Financial status		
not enough,there are liabilities.	14	2.71
Not enough, no debt	109	21.12
sometimes enough.	153	29.69
always enough,no money left.	105	20.35
always enough,money left over	135	26.16
Relationship with friends		
Apart	9	1.74
Mostly quarreling	2	0.39
Sometimes quarrel	109	21.12
Good love	396	76.74
Reason for choosing nursing study		
Like to study	67	12.98
Parents recommend	169	32.75
Don't like studying,for parents.	26	5.04
Having a chance to get a job	254	49.22

According to Table 1, the Most of sample group are female, 96.32 percent are studying in the first year. Accounted for 28.88 percent, with more than half of academic achievement between 2.50-3.00, representing 50.58 percent, and in the past 1 week, more than half the sample group having to face problems in life situations that cause uneasiness 55.81 percent With good physical health, accounting for 92.64 percent, the atmosphere of a loving family as well as 86.63 percent and the financial status has been sometimes sufficient, accounting for 29.69 percent

Table 2 Average and standard deviation of psychological self-care behaviors individuayl and overall of the sample group (n = 516)

psychological self-care behaviors	mean \bar{x}	Standard deviation (SD.)	Interpretation
Developing self-awareness	2.98	.44	medium
Effective communication	3.02	.44	medium
Time management	3.18	.44	medium
Coping	3.06	.44	medium
Maintaining Social support	3.12	.43	medium
Religious practice	2.94	.43	medium
Physical self-care	3.03	.46	medium
total	3.05	.35	medium

According to Table 2, the sample group had psychological self-care behaviors at a medium level with an average score of 3.05 (S.D. = .35) and when considering each aspect, it was found that using time management effectively has an average over all aspects with an average score of 3.18 (S.D. = .44) and religious practices with an average less than all aspects with an average score of 2.94 (S.D. = .43)

Table 3 The average and standard deviation of learning happiness of the sample group (n = 516)

psychological self-care behaviors	mean \bar{x}	Standard deviation (SD.)	Interpretation
Interesting in learning	3.62	.46	good
Learning satisfaction	3.50	.59	good
Self-satisfaction	4.01	.62	good
anxiety	2.27	.85	low
attitude towards the profession	3.88	.57	good
total	3.46	.38	medium

According to Table 3, the sample group had a moderate level of happiness in learning. With an average score of 3.46 (S.D. = .38) and when considering each aspect, it was found that the self-satisfaction was higher than all aspects. With an average score of 4.01 (S.D. =

.62) and anxiety with an average of less than that of every panda, with an average score of 2.27 (S.D. = .43)

Table 4 Relationship between psychological self-care behaviors and learning happiness of nursing students Boromarajonani College of Nursing, Ratchaburi with simple regression analysis (n = 516)

variables	R ² Change	b	beta	t	p-value
psychological self-care behaviors	.391	.703	.625	16.98	<0.001
Constant = 1.385, R = .625 R ² = .391 F = 288.268					

According to Table 4, the analysis of the relationship between psychological self-care behaviors and learning happiness with simple regression analysis, it was found that psychological self-care behaviors were significantly correlated with learning happiness (R = .625), p <.001, and predictability 39.1 percent of the study.

Discussion

Nursing students are individuals who are in their teens which the age of psychological self-care behavior will develop and change a lot as well as how people will behave in mental health will be correct or not depending on various internal and external factors of that person (Thanaphon Bandak, 2017) which the way that the person acts is the result of intelligence And self-esteem Having a perfect personality Which is the result of the process of life that is constantly related to many factors (Jintana Unipun, 1991) which nursing students themselves may have factors that affect self-care behaviors in mental health, such as experiencing changes in nursing and the normal daily life of students who have to face whether it is a matter of learning commitment both in theory and practice in various training sources In addition, students must be responsible for both themselves and users. Having a relationship with teachers and friends feeling uncomfortable with regulations while staying in a dormitory including changing social and economic conditions These are all stimuli that come to affect the behavior of psychological self-care behavior. From the fact that most nursing students are in adolescence, there are 92.64 percent of health conditions that may cause nursing students to see the importance of having relatively little psychological self-care behavior. In accordance with the study of Jiraporn Sapphawee Wong and Ananana Nilan (2007) that found that psychological self-care behavior of nursing students at Walailak University is at a high and moderate level. May be due to the teaching and learning in the Bachelor of Nursing Science Program Students have studied Chiology. Nursing care for people with mental health problems making students have a basis for understanding and consider the importance of their physical and mental development including knowing the causes of mental health problems including prevention and promotion of self-consciousness. Moreover, changes in life while studying nursing that occur most in each year Is having stress from studying Followed by the change of sleeping habits And in accordance with the study of Rungthip Phochum (2001, referred to in Prapaporn Chinanaya and Jon Phachong Pengjad) found that

the stress causes of nursing students Faculty of Nurse Mahidol University is a commitment to education. In both theoretical and practical aspects Relationships with teachers and friends Personal matters and causes of dormitories, respectively, in education, students are determined to make grades at a good level and study as expected by parents. As for the theoretical teaching, it was found that Too much content High competition in the class and not understanding the content As for practical teaching, causing stress in the form of unfamiliarity or experience using small tools and tasks that need to be practiced is complicated, requires a lot of techniques. The second cause of stress is Relationships with professors and friends, especially having to study with many teachers or circulate continuously, making it less likely to become familiar or adaptable. As for the relationship with friends, he found that he wanted to adjust to his friends. Because nursing students are young people who are the age that needs to be accepted by most friends And the cause of the dormitory is that from the house to the dormitory Must be separated from the family And students are in adolescence who like independence Therefore makes it uncomfortable to the rules of the dormitory. When considering each aspect, it was found that the highest score was effective time management ($= 3.18$, $SD = .44$), explaining that when studying as a nursing student from organizing activities within the college that focused on students Good, good, happy. Most activities are activities aimed at students working as a team. And some activities are activities that students must cooperate with outside the college, thus allowing students to know how to interact with others The side with the lowest score is religious activity ($X = 2.94$, $S.D. = .43$). Explain that it may be caused by personal characteristics of individuals such as they can not follow the schedule. In addition to studying in a nursing profession that requires practice in the ward, it may cause students to think that they have less time to relax. Must work until late. In accordance with the study of Yaowalak, there is a lot of merit (2004) that found that from the survey of practical learning data The students of Boromarajonani College of Nursing, Ratchaburi, found that students had problems with improper use of time. Ie start researching knowledge documents and slowing down, causing slow work, working until late, preparing knowledge Words for answering questions the teacher the next day And considering the time that students start working Most of the work starts at 21.00-22.00 hrs. Working along with watching TV programs. Study the development of time management ability of nursing students. Most students Arrange their own level of punctuality at a moderate level.

The results of the relationship analysis of self-care behaviors in mental health and happiness. In learning of students, it was found that mental health self-care behaviors were significantly correlated with learning happiness ($R = .625$) ($p < .001$) and were able to predict learning happiness. Accounted for 39.1 percent from the study of predicting the happiness of Iranian nurses Found that it was at a moderate level The factors that are related are health, compensation, quality of life, work place, age, mental health, relationship with the happiness of these nurses. Because mental health consists of Life satisfaction Self-perception of self-efficacy, intelligence and competency is considered a personal potential to help promote the well-being of that person (Zahra Khosrojerdi, 2018), which is consistent with the study of Pattararat Khao-Sadane-Apananakun and Manee Apananakun (2013) found that

Self-esteem and social support were significantly related to the happiness of nursing students at the level of .05 as route.

What makes it happy While studying in this college is Will determine the life schedule for themselves This time, what is required to do in order each day, so there is time to study when playing, reading and sleeping. "Followed the plan, what will it do today? Such as exercise, reading, watching movies, talking with friends, doing homework In addition, students also have a source of psychological support that results in greater happiness. This study found that the social support sources of students were families, parents and friends. Most of the past studies were stressful. Nursing students will talk to their best friends first (Manee Apananunkun and Faculty, 2012) ... meeting a good friend, sincerely looking for advice. Stay with us in times of suffering Encourage each other regularly Which is consistent with the study of Rungnapa Kulpakdee and Phenchana Saenprasang (2017). Selected factors on friends Has a relationship with happy learning of nursing students Royal Thai Army Nursing College With a statistically significant level at .01, because the lives of nursing students will be with friends as much as the learning that occurs along with friendship, causing learning together, sharing, exchanging, learning what they know With friends and juniors, sometimes getting new knowledge and friendship together, resulting in a more active behavior

Recommendation

1. Implication for Education

The study finding should be used as basic information for administrators and instructors to provide activities or projects that promoted psychological self – care behaviors continually in order to enhance learning happiness for nursing students.

2. Implication for Research

Qualitative research such as studying experiences in psychological self – care behaviors based on resilience should be further done.

Acknowledgement

The researcher would like to express deep gratitude to all the respondents who participated in this study. The special thank is extended Mrs.Penchamart Khamthana, the director of Boromarajonani College of Nursing, Ratchaburi for the encouragement throughout the research process. We are overwhelmed by the enthusiasm and cooperation of all students, without them the completion of this study would not have been possible and successfully completed.

References

- Abir K, JacleneA, Wagdy E (2008) Happiness: Theoretical and Empirical Considerations. Nursing Forum 43(1): 12-23.
- Chiraphon Sanphaweewong, mental health and mental health self-care behavior of nursing students Bachelor of Nursing Science Program Walailak University Journal of Nursing Council 2007: 22 (3) 91-104

- Jintana Yuniphan. Factors related to mental health self-care behaviors of Thai people in the central region Copied, (1991)
- Kanjana Wanna, Nuchjaree Chaimongkol and Pichamon Poonnotoke (2017). Factors Influencing Happiness among Nursing Students in Private Universities. *Journal of Nursing, Siam University*, 18(34), 97-108. Retrieved from <https://www.tcithaijo.org/index.php/nursingsiamjournal/article/view/140356>
- Manee Aphanantikun, Pannawadee Wattanawat, Jariya Wittaya Suphara. Health status and health practices of Thai nursing students. *Journal of Nursing Council* 2012; 26 (4): 123-136.
- Napatrarat Khaosad, Manee Apanantikul and Pannawadee Wattanawatana selected factors related to the happiness of nursing students *Journal of Nursing Council* 2013 25 (1) 19-33
- Pakamard Peetaragorn, Jintana Tongpeth, and Nongnaphat Rungnoi Happiness in Clinical Practice of Thai nursing students: A Case Study of Prachomklao College of Nursing Phetchaburi
1st Mae Fah Luang University International Conference 2012 THAILAND
- Pattama Thongsom (2011). Development of learning happiness index of Bachelor of Nursing Science students Under the Ministry of Public Health. *Journal of Nursing and Education*, 4 (1), 88-110
- Rungrapa Kulpakdee and Penchan Saenprasan The relationship between selected factors and learning Happiness among nursing students, *Army Nursing College Police Nursing Journal*, Year 9, Issue 2, July-December 2017
- Thanapol Bandak, Chanthada Attakornsorn and Duangjai Wattanasin, the effect of the program to strengthen life in the happiness of nursing students. *Journal of MCU Peace Studies* Vol 5 No.3 (September-December 2017)
- Vinijkul, S. Relationship between Academic Environment Supports, Learning Happiness and Academic Achievement of Nursing Students at Kuakarun Faculty of Nursing, Navamindradhiraj University. *Kuakarun Journal of Nursing*, 21(SUPP), 7-24. (2015). Retrieved from <https://www.tci-thaijo.org/index.php/kcn/article/view/31053>
- Zahra Khosrojerdi, Predictors of happiness among Iranian nurses *International Journal of Nursing Sciences* 5 (2018) 281-286

China's Engagement in International Human Rights Diplomacy

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INTRODUCTION

For several centuries, the Western world dominated politically, economically and culturally. However, this reality is now coming to an end as we witness a new and defining trend described by some analysts as the "Easternisation" or "Asianisation" of the world (Rachman 2016; Khanna 2018).

Since the turn of this century in particular, the growing wealth and rapid development of many Asian countries is transforming world order and the international balance of power. At the heart of this paradigm shift is China, the world's second largest economy and the driving force behind this new turning point in modern history. At the same time, the current world order is being tested by an Arab world in turmoil and a Russia longing and trying to reclaim its status as a great power. These challenges, combined with the 2016 Brexit vote in the United Kingdom, the rise in the number of populist and increasingly authoritarian regimes across Europe, all seem to point to a West losing its ability to set the global agenda.

When a gigantic country like China rises and experiences unprecedented economic growth, its increasing influence also affects and shapes international politics. After three decades of economic liberalisation, Beijing's impressive economic expansion is, however, not matched by political liberalisation. Although the country has opened up politically through its active participation in international security, economic and normative institutions, it did so whilst ensuring its national goals and priorities are protected. Where China is clearly lagging behind is in the human rights field. In fact, many would argue that economic development especially under the current leadership of President Xi Jinping has led to further deterioration in the human rights situation with broader corrosion of social and political freedoms (Human Rights Watch 2018, Amnesty International 2017). Under the current regime though, greater efforts have been made to integrate human rights in its foreign policy strategy. China is now playing a more active role engaging with key international human rights institutions. To what extent is this human rights diplomacy guided by China's determination to prioritise the country's needs and interests? Or is this more an indication of Beijing's plan to shape and reform the existing human rights regime which suffers from some obvious flaws?

A CHANGING GLOBAL LANDSCAPE

The 21st century has been marked by some startling and deeply transformative events and trends which have shaped a new global landscape dominated by new and/or (re-) emerging powers. Until a hundred years ago, the Western world exercised global dominance

and controlled four fifths of the planet's landmass (Hoffman 2016).¹ Today, rising powers are springing up in different parts of the world and their influence is being felt globally. If we are to apply the concept of "Easternisation" here, it is clear that several countries in Asia, headed by China, lead the way.

Since the late 1970s when China's reform and opening up policies began, its level and rate of economic growth have been remarkable and with impressive results. Consider the fact that an estimated 800 million Chinese citizens are believed to have been lifted out of extreme poverty in just over 30 years (World Bank 2018).² The commercial dynamism of China reverberates far beyond its borders. The grand multi-billion dollar Chinese-financed "Belt and Road Initiative" is not just a symbol of China's growing power. Many of the 80 plus countries affected by this mega-infrastructure project in fact cluster along the ancient Silk roads linking China to Europe, the Middle East, Central and South Asia and the Far East by rail, road and sea (Frankopan 2018). As such, China today is connecting to its past and making a strong statement about how its newly-found global status is tied up to its historical glories whilst ensuring closer ties with the West.

Drawing on its economic strength and industrial confidence, and with the ruling Communist Party also geared towards having more influence globally, China's prowess extends to international politics. Since he came to power in 2012, President Xi Jinping's strategy has been to re-claim China's leading role on the world stage. Beijing is deploying its economic wealth to support foreign policy goals on a broad range of issues not least to avoid any criticism of its human rights record. The Chinese leadership is using its powerful status to influence areas such as global politics, the economy, the media and civil society. It has been largely successful in achieving some of its aims given the state of affairs in much of the Western world.

The United States and Western Europe are struggling with domestic and regional troubles including the erosion of their economic capabilities and the weakening of their political influence. These countries have been prioritising issues like migration and counter-terrorism at home whilst paying little to no attention to human rights and political freedom abroad. The rise of nationalist populism in the USA and many European economies seems to be linked to the disillusionment, anger and resentment of large numbers of people who are feeling increasingly left out by the onslaught of neo-liberalist policies in almost all aspects of life. The trickle in the "trickle-down theory" never reached these people who have found themselves facing economic hardships and a more uncertain future. The post-cold war order which centred around the unchallenged power and military might of the USA, Western-designed global institutions and multilateral norms, has been weakened. For some observers, the influence and reach of Western nations will continue to diminish over the next 30 years (Macaes 2019)

¹ Between 1492 and the start of World War 1 in 1914, Europe conquered the globe establishing its colonies in every continent. Europe represented only 8% of the land surface.

² According to the World bank, China's poverty rate fell from 88% in 1981 to 6.5% in 2012.

AN INTERNATIONAL HUMAN RIGHTS SYSTEM IN CRISIS

Around the world, we have witnessed significant lapses in human rights protection and promotion in the context of counter-terrorism operations post 9/11. Since the 2008 financial crisis in particular, Western liberal democracies have been collapsing as global political players whilst China's rise has accelerated. The recent growth in populist agenda of many political leaders is openly nationalistic, xenophobic, misogynistic and racist (Alston 2017). Explicitly anti-human rights, this populist agenda poses huge challenges to national and international human rights norms and movements. President Trump's xenophobic "America First" policies defy international law and de-prioritise human rights. The threats or actual attempts by the current US administration to weaken international human rights institutions include withdrawing from the UN Human Rights Council, leaving UNESCO and defunding the UN Reliefs and Works Agency (UNRWA)³ are just a few examples of the extent to which a leading world power chooses to go to undermine multilateralism and the human rights system. There is little doubt in the fact that the state of human rights worldwide is facing a major crisis.

China's influence in international politics is expanding whilst its domestic political system is caught in a time warp. Largely dominated by collective leadership of the State Council and the Communist Party, Beijing's firm grip on political affairs at home is reflected in its strategy in the international arena. In other words, its growing global influence is spreading to how it has been deploying its human rights diplomacy.

As stated previously, the current state of world affairs can account for much of how China is making its mark on the international human rights scene. As the number of countries that promote nationalist ideologies grows, Beijing is moving in to try and fill the gap by advocating for internationalism and free trade. Whether in relation to international financial agencies such as the World bank and the International Monetary Fund (IMF) or at the United Nations, China is seeking to enhance its global reputation.

CHINA'S GROWING INVOLVEMENT IN THE UNITED NATIONS

Until the 1970s, China's communist system of governance was hostile to what it perceived as exploitative capitalist institutions known as KIEOS or Keystone International Economic Organizations (Jacobson and Oksenberg 1990).⁴ Today, however, as China's expertise and economic confidence grows, its role inside the World Bank, for instance, has been shrinking. It uses the Bank primarily for "selective technical, institutional and conceptual innovations for development." (Bottelier 2006)

³UNRWA is a rather unique agency in that it was established by the UN General Assembly in 1948 to support and advocate for the rights of several million Palestinian refugees who were displaced following the creation of the state of Israel in 1948. It has therefore been responsible for the welfare and human development of four generations of Palestinians. The US decision to stop the funding is thought to have caused a large budget deficit of over \$270 million.

⁴ In 1980, China joined the World Bank and has since been one of its largest borrowers and recipients of technical assistance. In recent years, though, its influence inside the bank has increased in line with its global status (Bretton Woods Project 2011).

On the other hand, China is also emerging as a pivotal player at the UN where it has been active in making significant changes in international human rights laws and mechanisms. Its growing international influence - combined with concerns over a global surge in authoritarian nationalism and the demise of international legal obligations - means that China is in a strong position to affect change in this area whilst facing little opposition from the international community.⁵ We are witnessing a country that is seizing this opportunity to strengthen its own normative power and push for its own theory on human rights based on two key principles; sovereignty and the right to development.

China is now the second largest contributor to the entire UN budget (United Nations Secretariat 2018). Its growing involvement in the UN system is clearly contrasted by the USA's cuts in both personnel and financial contributions.⁶ In recent years, Beijing has increased its military engagement through its growing support for UN peacekeeping operations. Between 2003 and 2004, it began making significant contributions to peace-keeping operations. This coincided not only with its rising prominence as a major economic power but also with the US invasion of Iraq. This was also an opportunity for Beijing to show its alliance with developing nations (ISDP 2018).

Between 2013 and 2018, China's contribution to peace-keeping operations rose from 3% to 10.25% thus ensuring its strong position in the new international balance of power and with greater influence in international peace and security (The Diplomat 2018). Thousands of China's People's Liberation Army soldiers have also been trained to become a permanent standby force for the UN peacekeeping operations. Re-branding itself thorough these far-reaching strategies has earned China the reputation of being "an honest broker" and a "bridge-builder" in international conflict by the current UN Secretary-General António Guterres (The Diplomat 2018). China's increased involvement in UN peacekeeping is particularly important at a time when there have been significant cutbacks from other permanent members of the Security Council. China's contribution to peacekeeping missions in countries such as South Sudan and Mali is also thought to help promote stability in these countries where it has strategic and commercial interests (Chatham House 2019).

The other major cornerstone of the UN system where China has been seeking a more active role is in the human rights field. Under President Xi in particular, China has been much more assertive and more pro-active in its dealing with international human rights mechanisms and institutions. Gone are the days when Beijing adopted a more defensive approach in its overall approach to human rights, and particularly to critics of its human rights record (Piccone 2018). According to Piccone (2018), this comes from "...a two-part-strategy that seeks to 1) block international criticism of its repressive human rights record, and 2) promote orthodox interpretations of national sovereignty and noninterference in internal affairs that weaken international norms of human rights, transparency, and accountability."

⁵According to the 2018 Rule of Law Index, two thirds of the 113 countries surveyed have experienced a decline in fundamental human rights.

⁶The Trump administration announced in March 2018 that the USA will reduce its share of the UN peace-keeping budget to 25%.

According to one analyst, China's involvement in the international human rights system is marked by three distinct periods. The first period; prior to the 1989 Tiananmen Square. China's role at the time was minimal. The second period; from 1989-2013 was marked by China becoming more active at the U.N. Commission on Human Rights (UNCHR) and at the U.N. Human Rights Council (UNHRC). During this time, it focused primarily on "defending its own and like-minded governments' human rights records". The third and final period began after 2013 when China became progressively more assertive in promoting its own interpretation of international norms and mechanisms (Mulrenan 2019).

In fact, one needs to go even further back to assess China's evolving views on human rights. Between 1949 which marked the establishment of the People's Republic and the late 1970s when Deng Xiaoping embarked on introducing various foreign policy reforms, the concept of human rights was absent from the official political discourse (Zhu 2011). The importance of human rights both domestically and in international policies gained more momentum in the wake of the 1989 Tiananmen Square crisis. Faced with criticism from the international community about its use of brutal force to clampdown on unarmed pro-democracy civilians, Beijing began to slowly engage in the international human rights system (Piccone 2018).⁷

CHINA'S BRAND OF HUMAN RIGHTS - "RICE BEFORE RIGHTS"

Despite these important steps in ensuring the country engages with international human rights standards, China's human rights policy is characterised by its focus on state sovereignty and rejection of any interference from outside. Some argue that this 'sovereignty-bound' approach to international relations has its roots in the period of China's subjugation to European powers following the Opium War between 1839 and 1842.⁸ China also rejects the more individualistic approach to human rights. Instead, it promotes collective rights such as the right to development (Chatham House 2012). It is no surprise, therefore, that its current policy gives priority to economic and social rights over civil and political rights. Just like many other Asian countries have long believed and advocated, China rejects international traditional notions of human rights as defined by the UDHR and international law. Its stand is that human rights need to be managed through the pursuit of the country's main economic, social and political interests. This line of argument is known as "the rice before rights theory" or "the full-belly thesis" (Howard-Hassmann 1983). The right to food and development are both individual and collective rights. If people cannot express their concerns and organise to advocate for these rights then these rights are clearly being undermined.

⁷In 1997, China signed two key international human rights treaties; the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Covenant on Civil and Political Rights (ICCPR). It also cooperated with independent U.N. experts who worked with government officials on how to comply with international norms (Piccone 2018). It also signed and ratified several human rights treaties including conventions on race discrimination, discrimination against women, apartheid, refugees and genocide (Chatham House 2012).

⁸China was forced to sign these unequal treaties which granted various privileges to Western powers. From 1911 onwards, "China's leaders invoked the principles of state sovereignty and sovereign equality as a protection against further foreign incursions." (Chatham House 2012)

Under President Xi Jinping, a more confident China is pushing its strategy on human rights when its own human record is believed to have deteriorated further with severe crackdown on activists, dissidents and civil liberties. Leading international human rights organisations like Human Rights Watch and Amnesty International have long reported about the serious concerns they have with regards the human rights situation in China. These organisations, and many others, have analysed the links between China's economic rise and various human rights abuses and violations (Amnesty International 2018; Human Rights Watch 2019). Economic growth has been achieved at a cost. Growing inequality has led to growing protest movements, protests against chemical contamination and environmental problems, abuses of labour etc... The Chinese leadership sees these issues and many others as internal affairs and so has regularly spoken out against interference in its human rights situation.

At the same time, there appears to be a renewed energy to bring the country's economic power to bear in other areas of the international system. To quote the latest annual report on China by Human Rights Watch: "China's growing global power makes it an exporter of human rights violations, including at the United Nations, where in 2018 it sought to block participation of its critics." (Human Rights Watch 2019).

By adopting a more pro-active approach to the workings of key UN human rights bodies such as the Human Rights Council (UNHRC), Beijing's plan has been to make sure the international community cannot be critical of its human rights record. Subsequently, it has been using its position at the Council to promote itself as the leading power of the developing world. It has also been trying to undermine Western governments that have so far set international norms and standards. Furthermore, the Chinese leadership is reported to have repeatedly lobbied to block or weaken UN resolutions on civil society, human rights defenders, and peaceful protests.

In June 2017, China embarked on a new and more engaging role at the UNHRC when it initiated its first Resolution. Called "the contribution of development to the enjoyment of human rights", the Resolution was sponsored by China and supported by 48 developing countries, all of which (except Russia) were developing countries (Van Der Putten 2018). This Resolution stated the importance of people-centred development as the foundation of human rights. In March 2018, the Chinese Government introduced another Resolution at the UNHRC named "Promoting the International Human Rights Cause through Win-Win Cooperation". The Resolution promoted inter-governmental mutually-beneficial cooperation and dialogue. However, it ignored the fact countries that violate human rights must be accountable for their actions (Richardson 2018). It was noted that human rights language such as the concepts of "civil society" or "human rights defender" were absent from the Resolution. Instead the ambiguous phrase "mutually beneficial cooperation" appeared nine times.

There have also been reports about China's diplomatic efforts to not only influence other human rights decision-making bodies at the UN but to also shrink the space used by civil society organisations and activists at various UN forums. A number of countries that have recently benefited from China's investment are thought to have supported China's

resolutions at the UN. For example, in 2017, Greece vetoed a European Union condemnation of China's human rights record (International Bar Association 2019). The same study also concluded that several countries in Africa that have voted with China at the UN received an increase of 85% in aid (International Bar Association 2019). Beijing's propaganda machine is also believed to be used extensively to neutralise any criticism from Western countries. The strategy it has adopted centres around playing traditional power politics and offering commercial incentives to nations that can block a strong unified Western front (Wan 2019).

In 2017, Human Rights Watch published a detailed report addressing these very issues. It noted the ways in which the Chinese Government has been working in a consistent and often aggressive manner to silence criticism of its human rights record before various UN bodies. The report details the types of action taken by the current Chinese leadership in order to weaken some of the central international human rights mechanisms. These include state security agents regularly warning Chinese activists against working with or even contacting U.N. human rights officials in Geneva. Some activists were detained in order to stop them from traveling to key U.N. meetings. Others activists were harassed on UN premises. China has also used its membership of NGO Committee of the Economic and Social Council's (ECOSOC) to block NGOs critical of China from being granted UN accreditation. It has also attempted to bar other accredited human rights activists from attending ECOSOC meetings. Furthermore, they are reported to have harassed and intimidated UN staff and experts working with Treaty Bodies and independent experts with human rights briefs.

These strategies and fears were already echoed several years ago in a detailed study by Chatham House, the independent International Affairs Think Tank based in London. The 2012 report highlighted the clear links between China's new role in the world as an economic power house and its attempts to be more actively engaged in the international human rights system. For example, the UN Human Rights Council paid little to no attention to human rights violations in China despite the international attention awarded to the "Jasmine Revolution" of 2011. This was seen as a reflection of the new balance of power within the Council. The report also noted the Chinese Government's hostile attitude towards NGOs that wanted to present to the Council their reports on human rights violations in China. Chinese officials reportedly blocked NGO representatives from delivering their statements at the Council.

HOW FUNDAMENTALLY DIFFERENT IS CHINA'S HUMAN RIGHTS DIPLOMACY?

Without intending to sound dismissive of the importance of China's increasingly proactive, and somewhat forceful international human rights diplomacy, it might be helpful at this stage to reflect a little about global power politics and how they have shaped the global human rights regime. It would also be useful to make a few brief points about some of the workings and impact of existing key international human rights mechanisms.

It is obvious that states are profoundly unequal especially when it comes to the powers they exercise and the influence they have in global affairs. However, when it comes to their

legal rights and obligations, all states are believed to be equal. The reality, though, is quite different especially in the international human rights domain. One of the key international arenas where this reality plays out clearly is the UN. As the only inter-governmental organisation with considerable legitimacy and political power, the UN structure still largely reflects the power relationships of the post-1945 world. In fact, the historical record of the UN, and more specifically its human rights regime, is riddled with power politics and double standards. Claims that the enforcement of UN resolutions reflect the political interests of the major powers are as old as the organisation itself. There is certainly no shortage of examples to substantiate these claims. Under President Saddam Hussein, Iraq's non-compliance with UN sanctions resulted in repeated bombings and a rigorous trade embargo which not only crippled the country's economy at the time but caused the death of hundreds of thousands of Iraqi civilians. At the same time, Israel has been allowed to defy various UN resolutions, notably the 1967 Security Council Resolution 242 which ordered Israel to withdraw from Palestinian territories it occupied during the six-day war. Furthermore, the US Administration, has for decades, vetoed UN resolutions condemning Israel's occupation of Arab territories.

For decades, there have been frequent proposals to reform the UN human rights machinery in order to strengthen its effectiveness and credibility to respond to human rights crises. The examples of UN's failures in Rwanda, Srebrenica, and Syria have received much attention. The organisation has faced three main criticisms. First, the perceived double standards thought to be directly linked to political biases and power relations of its members. Second, the weak and inefficient UN human rights institutions and procedures. Finally, the UN has also been criticised for its inability to monitor and implement properly its very own recommendations and actions (Troszczynska-Van Genderen 2015). Today, the widely recognised new global power configurations have been used to call for yet another reform. With Western countries ceding global power to emerging/re-emerging economies like China - known for their mostly skeptical approach to the protection and promotion of human rights - it is no wonder the future of the international human rights regime is uncertain.

China's current international human rights diplomacy is a reflection of the state of affairs worldwide and at the UN in particular. What China is doing is play the system to serve its own interests, build strategic alliances and strengthen its global ambitions, the way other - predominantly Western powerful states have done before. China frequently invokes the principle of non-interference or non-intervention to challenge the legitimacy of criticisms of its human rights record. It is also very sensitive to criticism of its domestic human rights record by other UN member states. It often responds by drawing attention to the fact that these critics must first deal with their own human rights situation before criticising China.

CONCLUSION

As China's role as a major economic power expands and strengthens so does its influence in international arenas like the UN. Since President Xi Jinping came to power, China's historical absence and low profile at the UN has changed dramatically. Its recent involvement in international human rights diplomacy has been marked by a much more pro-

active and assertive approach. Beijing is able to shape and influence this global arena at a time when Western influence is not only waning but also failing to impose its traditional policy preferences, double standards and values on the rest of the world. China's ambition shows its desire to be seen accepting the legitimacy of and abiding by the rules of the international human rights regime. It is after all a signatory to all the core international human rights treaties. Yet, over the past several years, it has also consistently shown its determination to undermine and weaken the accountability mechanisms of human rights treaty bodies. It has also gone as far as harassing and blocking any official or independent voices that raise concerns about its deteriorating domestic human rights record. Its posture has evolved in such a way that it seeks to actively engage with other developing nations to build strategic and mutually-beneficial coalitions to promote its policy of securing public order, often at the expense of stifling or even silencing individual freedoms.⁹

China's earlier defensive posture within the international human rights framework has been replaced by a much more assertive and even aggressive stand. As recently as March 2019 when the Human Rights Council held its session in Geneva, Human Rights Watch reported once again the extent to which the Chinese Government was prepared to go to continue building coalitions, to undermine the accountability mechanisms of the UN system and to reject any credible reports criticising its human rights violations (Human Rights Watch 2019).¹⁰

China also appears to be dissatisfied with the current international order at the UN; a system it doesn't consider of its own making given its western origins and links with the geo-political control of the West. Yet, given the fact that human rights issues do not form a central concern for the Chinese leadership, it seems that any attempts to make changes to the international human rights regime is not likely to be that significant or far-reaching. In other words, this new human rights policy is not a reflection of China's more radical ambition to remold the existing international order with new policies, procedures and structures. At least it is too early to argue that these efforts convey more accurately Beijing's world view and interests. What is clearly more feasible is that China wants to be seen as one of the big international players with the power and influence to shape the new world order. It has therefore opted for an international human rights diplomacy that can be safely described as a hardline one. In other words, the Chinese Government considers the sovereignty of the State as its key prime responsibility hence its robust handling of internal human rights issues without the intervention of UN human rights bodies. In sum, China's international human rights diplomacy serves three main purposes: enhance the country's global reputation and influence, ensure that its stand on human rights does not deviate from its more traditional and skeptical perspective on the issue, and finally that it pushes for changes within the UN framework that actually serve these first two purposes.

⁹The fact that in both the UN General Assembly and Human Rights Council, developing countries constitute the majority of members means that China is able to exert its influence on these potential allies.

¹⁰ The report lists a series of intimidating techniques and actions taken by Chinese officials in Geneva to pressure and warn critics. For example, Chinese officials warned delegates who criticised China's human rights record of the negative impact this would have on their bilateral relations. They are also said to have pressured other delegates to praise China's human rights record.

BIBLIOGRAPHY

- Jehan, Alfarra (2016). UN double standards with regards to Israel. *Middle East Monitor*. July 5, 2016
- Alston, P (2017). Dialogue on Human Rights in the Populist Era. *Journal of Human Rights Practice*. Vol 9, 2017, pp 1–15
- Amnesty International (2018). *Annual Report 2017/18. State of the Worlds' Human Rights*. Amnesty International Ltd.
- Bottelier, P (2006). *China and the World Bank: How a Partnership Was Built*. Working Paper No. 277. Stanford Center for International Development
- Bretton Woods Project (2011). *China and the World Bank*. 14 September 2011.
<https://www.brettonwoodsproject.org/2011/09/art-568894/>
- Chatham House (2012). *China and the International Human Rights System*. Sonya Sceats with Shaun Breslin. October 2012
- Chatham House (2019). *China's Growing Military Presence Abroad Brings New Challenges*. Harriet Moynihan and Dr Wim Muller.
- Frankopan, Peter (2018). *The New Silk Roads: The Present and Future of the World*. Bloomsbury Publishing PLC.
- Hoffman, Philip T (2016). *Why Did Europe Conquer the World?* Princeton University Press.
- Howard-Hassmann, R (1983). The Full-Belly Thesis: Should Economics Rights Take Priority Over Civil and Political Rights? Evidence from Sub-Saharan Africa. *Human Rights Quarterly* 5(4) · November 1983
- Institute for Security & Development Policy (2018). *China's role in UN peacekeeping*
<http://isdpeu/publication/chinas-role-un-peacekeeping/>
- Jacobson, Harold K. and Oksenberg, Michel (1990). *China's Participation in the IMF, the World Bank, and GATT: Toward a Global Economic Order*. University of Michigan Press
- Human Rights Watch (2017). *The Costs of International Advocacy: China's Interference in United Nations Human Rights Mechanisms*.
<https://www.hrw.org/report/2017/09/05/costs-international-advocacy/chinas-interference-united-nations-human-rights>
- Human Rights Watch (2019). China: Events of 2018.
<https://www.hrw.org/world-report/2019/country-chapters/china-and-tibet>
- Human Rights Watch 2019. *UN: China Responds to Rights Review with Threats. Member States Should Seek International Inquiry into Widescale Abuses*.
<https://www.hrw.org/news/2019/04/01/un-china-responds-rights-review-threats>
- Logan Pauley (2018). China Takes the Lead in UN Peacekeeping. *The Diplomat*. 17 April 2018. <https://thediplomat.com/2018/04/china-takes-the-lead-in-un-peacekeeping/>

- Macaes, B. (2019). *Belt and Road: A Chinese World Order*. Hurst Publishers.
- Mulrenan, Stephen (2019). China's design for human rights. *International Bar Association*.
<https://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=e0fd1a4a-e3e7-4f80-aefb-31eb339bf045>
- Piccone, T. (2018). China's Long game on Human Rights at the United Nations. *Foreign Policy at Brookings*.
<https://www.brookings.edu/research/chinas-long-game-on-human-rights-at-the-united-nations/>
- Richardson, S. (2018). Is China winning its fight against rights at the UN? *The Hill*, 23 November 2018
<https://thehill.com/opinion/civil-rights/417554-is-china-winning-its-fight-against-rights-at-the-un>
- Troszczynska-Van Genderen, W (2015). Reforming the United Nations: State of Play, Ways Forward. *European Parliament Directorate-General For External Policies. Policy Department*.
[http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536435/EXPO_STU\(2015\)536435_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536435/EXPO_STU(2015)536435_EN.pdf)
- United Nations Secretariat (2018). *Assessment of Member States' contributions to the United Nations regular budget for the year 2019*.
<http://undocs.org/en/ST/ADM/SER.B/992>
- Van der Putten, Frans-Paul (2018). Human rights: breaking the Western monopoly of discourse in human rights' issues. *A United Nations with Chinese characteristics? Clingendael Report*.
https://www.clingendael.org/sites/default/files/2018-12/China_in_the_UN_1.pdf
- Wan, M (2019). *Human Rights in Chinese Foreign Relations*. University of Pennsylvania Press.
- World Bank (2018). *The World Bank Group in China - facts and figures (1980 - 2018)*
- Zhu, Y 2011. China and International Human Rights Diplomacy. *China: An International Journal* 9, 2 (Sep 2011): pp 217-245.

Updating School Heads Performance: Based Assistance on Sustaining School Administrators

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Abstract

This study aimed to assess the school heads' performance based on the Office Performance Commitment and Review Form (OPCRF) in terms of leading people, people performance management and people development in Mabini District, Division of Batangas, Philippines. The study also aimed to find out common leadership challenges experienced by the school heads and to determine the weak competencies of 16 school heads that need more assistance with the end view of preparing leadership enhancement tips for effective management of their respective schools. Mixed method of research is being used in this study. It is quantitative in nature since the study uses weighted means to assess the performance of the school heads based on the leadership competencies. On the other hand it is also qualitative in nature since the study conducted a structured interview to meet the common leadership challenges, assistance and tips for leadership skills. The data gathered through the use of two set of questionnaires and unstructured interview. Findings revealed that school heads need more assistance in some competencies in leadership. After analyzing the findings and conclusions, the researchers give the following recommendations: conduct regular leadership style reflection based on the three competencies and enhance the performance in each component, conduct enhancement activities for the school heads, implements the MATDARENDA Tips and a parallel study may be conducted to establish the validity of the study.

Keywords: competencies, enhancement tips, leadership, performance,

Introduction

School leadership has become a priority in education policy agendas internationally. It plays a key role in improving school outcomes by influencing the motivations and capacities of teachers, as well as the school climate and environment. Effective school leadership is essential to improve the efficiency and equity of schooling. School leaders need time, capacity and support to focus on the practices most likely to improve student learning. Greater degrees of autonomy should be coupled with new models of distributed leadership, new types of accountability and training development for school leadership.

Research has shown that the school leaders can make a difference in school and learners performance if they are granted autonomy to make important decisions. However, autonomy, alone does not automatically lead to improvements unless it is well supported. In addition, it is important that the core responsibilities of school leaders be clearly defined and delimited.

School leadership responsibilities should be defined through an understanding of the practices most likely to improve teaching and learning.

This study is an overture of designing plan of action support system based on the school heads' performance utilizing the OPCRF for the school heads to maximize their full potentials as school heads. Thus, the researchers being the Public Schools District Supervisor and central principal of Mabini District primarily aims to assess each school head in accomplishing their tasks effectively.

Review of Literature

Effective principals understand what good teaching is and they recognize it as a critical factor in successful instructional programming. Marzano et al. (2015) reinforce the belief that effective principals are knowledgeable about the current curriculum, instruction and assessment practices, and are involved in the design and implementation of the instructional program.

In support, according to McEwan (2013) effective school leaders are knowledgeable about teaching and learning and serve as instructional leaders within their buildings. They believe it is critical to be up- to- date on the best practices in instruction and assessment and to seek out opportunities to learn more about good teaching (Beck & Murphy), 2010). Not only do effective principals understand what good teaching is, they also recognize that their primary goal is to improve the effectiveness of their teachers by sharing this understanding (Whitaker, 2013). The instructional leaders are able to tell the difference between activity and achievement, and can help teachers improve their practice by providing professional development to benefit student learning (McEwan, 2013).

Also, Leithwood (2006) identifies school leadership as a process that comes in priority directly after classroom teaching as a pivotal impact on pupils' learning. School leaders enhance the processes of teaching and learning implicitly and directly through their influential impact on staff motivation, dedication and working conditions through various interactions and communications. Enhancing instructional leadership as a prime concern. Pragmatic proof also reinforces that instructional leadership at primary and secondary levels is likely to be different (Johnson & Holdaway, 2010). However, leadership functions connected to learning, teaching and curriculum define a school principal's instructional leadership. This is supported by literature spanning the last 25 years. For instance, it is suggested that the influential, or high achieving, schools are managed around the main goal of teaching, the significance of instructional leadership, carries on in correct with the supremacy of transformational leadership.

Research has concluded that the transformational leadership when instructional leadership may not be influential on school performance and accomplishment, as measured by the quality of its pedagogy and the achievement of its students (Stuart, 2011).

On the other hand, Leithwood and Riehl (2015) concluded that successful schools are the outcome of great principals who take full responsibility for leading and learning.

Walker et al (2010) noted that principals' direct programs to create unity and consistency across the curriculum and achieve a common ground between the curriculum, teaching and learning. Together with their school communities, they ensure that all students experience a broad, objective, sensible and applicable curriculum through official, casual and extracurricular activities.

Sutcliffe (2013) disclosed that effective principals know how to collect meaningful data, but more importantly, are able to critically discuss, analyze and use it in a meaningful way to improvement instruction. The most recent programs of school leadership have incorporated the use of data for school improvement planning. Principals have become critical of information for decision making process by understanding the limitations of individual pieces of data. School principals are results-oriented and realize that translating expectations for academic achievement into effective instructional programming for their students will provide greater opportunities in the future. To conclude the entire school community in this process, they must clearly articulate the goals and the process which will make them defective.

Another quality of a school head is that effective principals are talented at building relationships. As McEwan (2013) states relationships drive school improvement. School leaders understand that to have a successful school, they need to focus on the people within the school, not the programs (Whitaker, 2013). By maintain the focus on people the successful principal indirectly promotes the development, implementation and growth of high quality instructional programs. The ability to establish personal relationships with all members of a school community is central to the work of a school principal. These relations convey a sense of caring and appreciation. This constant attention to relationships allows school principals to build up.

They know how bring out the best in those around them to foster relationships that empower people and help them thrive (McEwan, 2013). Caring is a way of respect for teachers and students involved in this process. Principals may express caring through challenging people to grow personally and professionally. Marzano et al. (2015), McEwan (2013) and Whitaker (2013) found that effective principals demonstrate and engage in a variety of relationship-building behaviors with teachers, students and parents on a daily basis in an effort to keep their relationships positive and growing.

Additional factors in the relationship between principals and the school community involve respect, relentless efforts and high collegiality among staff aspiring for innovation, creativity and cooperation, enhancement of integrity, responsibility and involvement with extracurricular community (La Plant, 2009). Principals work with or through people to reach goals with frequently are directly related to instruction.

Also, Albergs (2012) emphasized that they must create relationships based on trust with their staff members. For example, relationships can be reinforced through scheduling time for individual meetings, providing personal and professional growth opportunities, encouraging dialogues and modelling trust. Through communication, professional development of staff members may be designed and developed. For instance, involving staff in assessing current policies and practices of school and proposing changes to move the school forward could empower school members. Staff members feel their individuality and importance as factors of development since the principal confides in them, promotes their professional growth and has them as source instructional and emotional support. The school staff members and the principal, the, can be depicted as a ship crew and the captain who share responsibility for their survival and success.

A critical group which requires special professional consideration is the new teachers who are added to the school year; they effect the dissemination of the instructional program. The school principals, school administrators, mentors as well as senior teachers provide a multifaceted prospective on the performance of beginning teachers (Brock & Grady, 2012). Their viewpoints on the novice teacher's efficiencies are essential to buttress the quality of teaching and learning for both students and teachers. Principals and teachers are also loaded with numerous expectations that society places on them. Ballantyne et al. (2008) argue in their research on principal's perception of competent beginning teachers that there are many ways that they perceive a beginning teacher's efficacy and that it is principal's own perceptions that precedes their judgement of efficacy. Research by Cheng and Cheung (2014) has shown that the school's perceptions may vary from the perceptions of others, and these may have positive or negative impacts on beginning teacher's teaching and learning. School leaders are responsible for facilitating the transformation of beginning teachers from a pre-service teacher preparation program into the school educational setting (Gimbert & Fultz; (2009).

Throughout this process, school leaders are required to figure out beginning teachers' points of strengths and areas for improvement and to provide great support and training to address identified needs (Melton, 2007; Peltier-Glaze, 2006; Protheroe, 2009). School leaders are realistic about beginning teachers' attentiveness and provide enhancement and training through

positive communication that encourages these teachers to develop and maintain skills for effective classroom instruction (Cheng & Chung, 2014). Novice teachers are required to fully comprehend their tasks and duties, as well as their team position in the school context in order to be influential. They are required to be aware of their tasks in terms of classroom management and the execution of curriculum and instructional plans (Brock & Grady, 2007).

Care and attention to the induction of the beginning teacher into the profession is essential, so it is widely recognized that support is essential for beginning teacher success (Kauffman, Johnson, Kardos, Liu, & Peske, 2012). In the beginning years, the school leaders play an important role of interaction with the beginning teachers that would have a positive impact on the quality, of the beginning teachers' know-how, self-assurance, efficacy and efficiency. This creates a two-step issue for school leaders: they are required to enhance beginning teachers as they promote student success and accomplishment and to enhance the potential of those teachers. Professional development must address both issues.

As administrators, the school heads are responsible in managing all personnel, physical and fiscal resources of the school. He has the task of recommending the staffing complement of the school on its needs. Part of the administrative functions are enhancing staff development, establishing school and community networks and encouraging the active participation of teacher organizations.

The school principal is the highest-ranking administrator in any elementary or secondary institution under the supervision of the Division Superintendent. As a school leader, he takes charge of the overall operation of the school. As a manager, he is responsible for financial operations, building maintenance, student scheduling, personnel, public relations, school policy regarding discipline, coordination and the instructional program. As time goes by the role of the principal changes from being school manager to becoming instructional leader hence, the need to acquire management skills.

Principals are central to school improvement (Deal & Peterson 2005) restructuring and school effectiveness. They help promote change, lead reforms and support good teaching principals, like other managers, face a work day that is characterized by brevity, variety and fragmentation. Successful school leaders must be blend and balance leading and managing daily flow of nonstop activity. They must engage in complex strategic planning as well as routinely keep track of soda machine funds.

The principal is now in a position of facilitating team decision-making, an empowering leadership position, Bolin (2006). As a facilitator in the process, he she now supports teachers in developing skills in information gathering, problem solving, and making decision-making by

providing avenues through which teachers can develop skills, engage in dialogue, and access needed information.

As the leader in the school, the principal plays a major role in initiating activities and in assisting or facilitating with the follow-through. The degree to which the principal attends to these tasks will determine school success. Edmonds (2009) indicates that principals of effective schools impact them in the following ways: their administrative behavior, policies and practices affect school effectiveness: provide a balance between management and instructional skills, and develop and implement plan for dealing with students reading problems.

The maintenance of healthy school personnel relations is a large administrative responsibility for the school principal and extends beyond simply translating the various personnel contracts. Ultimately, much time is expended by principals in creating with the teachers and support personnel. This is not always easy, and in many instances, the principal must take direct action in sustaining a positive working and professional environment. If not handled appropriately, issues can lead to a confrontation.

Another administrative task of a school principal goes beyond outside the school. There are many extent agencies to the school that come into contact with the principal. Such agencies can include the school board, municipal or provincial government agencies, school service business or private citizens. These agencies can significantly influence in the operation of the school, often through political mean. One of the key administrative tasks that principals should do is the establishment of a clear direction of their schools. Another key aspect or administrative leadership is the support of teachers through the reinforcement of student behavioral codes of conduct in support with the faculty on discipline issues would be dealt with in a judicious and effective manner. Teachers have to feel that there is support and back up from them. The provision of support gives teachers the confidence that will be done in their classroom would be reinforced by the administration according to Lambert (2007).

Meanwhile, budgeting is an important aspect of management which ensures that all activities carried out to achieve the goals of the organization. It involves the provision of a policy framework for identifying sources of funds, its allocation, disbursement and recording of financial transactions.

Fiscal management in public organizations, however, was highly centralized. It was only when information and communications technology emerged that the trend toward decentralization began. Distribution of power and authority became the norm. The greatest challenge, however, facing policy makers today in field of fiscal management in public educational institution is designing a system of financial management and encourages

efficiency. With the issue of decentralization resolved. It is now time to systematically address the concern on the efficiency of fiscal management in order to ensure the equity in the distribution of resources whereby all learners may have access to good facilities, quality instruction and state-of-the-art instructional materials.

School managers must possess various management functions such as planning and budgeting; organizing and staffing; leading and motivating and assessing the rewarding in order to archive their goals of making their school a center excellence.

Research Questions

1. What is assessed performance of school based on the OPCRF based on the leadership competencies in terms of
 - 1.1 Leading people
 - 1.2 People Performance Management
 - 1.3 People development
2. What are the common leadership challenges experienced by the school heads ?
3. What competencies do the school heads believe that they need more assistance?
4. What leadership enhancement tips may be suggested to support the School heads in terms of developing their leadership skills?

Scope and Limitations

The scope of this research is the identification of the school heads performance in terms school leadership based on RPMS- OPCRF. Also, the analyzed needs are presented based on the ratings the school heads presented on their self assessment using RPMS-OPCRF.

The leadership competencies includes; Leading People which contains; 1 Uses basic persuasion techniques in a discussion or presentation e.g., staff mobilization, appeals to reason an/or emotions, uses data and examples, visual aids 2. Persuades, convinces of influences others, in order to have a specific impact or effect. 3. “ Sets a good example”. is a credible and respected leader; and demonstrates desired behavior. 4. Forwards personal, professional and work unit needs and interests in an issue. 5. Assumes a pivotal role in promoting the development of an inspiring, relevant vision for the organization and influences others to share ownership of DepEd goals, in order to create an effective work environment.

Another component is on leadership competencies is; People performance system management which includes; 1. Makes specific changes in the performance management system or in own work methods to improve performance (e.g. does something better, faster, at lower

cost, more efficiency; improves quality, customer satisfaction, morale, revenues).2. Sets performance standards and measures progress of employees based on office and department targets. 3. Provides feedback and technical assistance such as coaching for performance improvement and action planning. 4. States performance expectations clearly and checks understanding and commitment. 5. Performs all the stages of result-based performance management system supported by evidence are required documents/forms.

The last competency is; People Development which includes 1. Improves the skills and effectiveness of individuals through employing a range of development strategies. 2. Facilitates workforce effectiveness through coaching and motivating/developing people within a work environment that promotes mutual trust and respect. 3. Conceptualizes and implements learning interventions to meet identified training needs. 4. Does long-term coaching or training by arranging appropriate and helpful assignments, formal training, or other experiences for the purpose of supporting a person's learning and development. 5. Cultivates a learning environment by structuring interactive experiences such as looking for future opportunities that are in support of achieving individual career goals.

The researcher will present the data in a very qualitative manner, highlighting the genuine responses of the Principals and not on the quantitative value or scores of the teachers. Identifying and presenting the school heads' entire performance is a limitation of the study.

Methodology

Research Design

This is a mixed method research that is both qualitative and quantitative in nature. It is qualitative in nature since the study uses weighted means to assess the performance of school heads based on the leadership competencies. On the other hand, it is also quantitative in nature since the study conducted a structured interview to meet the common leadership challenges. Assistance and tips for leadership skills.

Sampling

The study uses non-probability sampling specifically purposive sampling in which respondents are purposively chosen to meet the desired goals of this research. The respondents of the study are all school heads of the 16 elementary schools in the District of Mabini, Philippines.

Data Collection

The study uses two set of questionnaires. All of the school heads will be given these two set of questionnaires. The first set is to assess the performances of the school heads based on the scale from 1 to 5. The second set is an open ended questionnaire to determine the leadership challenges experienced by the school heads, what assistance they need and tips may be suggested to support the school head in terms of leadership skills.

Data Analysis

Performance of the school heads were based on the Office Performance Commitment and Review Form (OPCRF) in leadership competencies are tally according to the scales and computed the corresponding weighted mean. On the other hand, some of the data through interviews will be treated through transcription strategy by listing, clustering and classifying the listed responses. A repertory grid was used to organize interpret the responses, frequency, percentage and weighted mean are the data treatment used by the researcher.

VI. Results and Discussion

1. Performance of school heads based on the OPCRf based on the leadership competencies

Table 1.

Performance of school heads based on the Leadership Competencies in terms of Leading People

Leading People	WM	VI
1. Uses basic persuasion techniques in a discussion or presentation e.g. staff mobilization, appeals to reason and/or emotions, uses data and examples, visual aids	4	CM
2. Persuades, convinces or influences others, in order to have a specific impact or effect.	3.23	MTD
3. "Sets a good example ". is a credible and respected leader; and demonstrates desired behavior.	3.23	MTD
4. Forwards personal, professional and work unit needs and interests in an issue.	3.15	MTD
5. Assumes a pivotal role in promoting the development of an inspiring, relevant vision for the organization and influences others to share ownership of DepEd goals. In order to create an effective work environment.	4.12	CM
AVERAGE WEIGTHED MEAN	3.748	CM

Legend

- 4.21 – 5.0 - RM Role Model
- 3.41 – 4.2- CM Consistently demonstrates
- 2.61 -3.4 - MTD Most of the time demonstrates
- 1.81 – 2.6- SD Sometimes demonstrates
- 1.0 – 1.80 - RD Rarely demonstrates

Table 1 shows that the school heads respective rating on the components under the competencies of leading people are as follows; uses basic persuasion techniques in a discussion or presentation e.g., staff mobilization, appeals to reason and/or emotions, uses data and examples, visual aids (4), persuades ,convinces of influences others, in order to have a specific impact or effect (4.24). “Sets a good example”, is a credible and respected leader, and demonstrates desired behavior (3.23) forwards personal, professional and work unit needs and interests in an issue (3.15), and assumes a pivotal role in promoting the development of an inspiring, relevant vision for the organization and influences others to share ownership of DepEd goals, in order to create an effective work environment (4.12).

The average weighted mean is 3.748 which is interpreted as consistently demonstrates, data reveal that the school heads exemplify practices in leading people most of the time.

Table 2
Performance of school heads based on the OPCRF based on the Leadership Competencies in terms of People Performance Management

People Performance Management	WM	VI
1. Makes specific changes in the performance management system or in own work methods to improve performance (e.g. does something better,faster, at lower cost, more efficiently; improves quality,customer satisfaction, morale, revenues).	4.12	CM
2. Sets performance standards and measures progress of employees based on office and department targets.	4.00	CM
3. Provides feedback and technical assistance such as coaching for performance improvement and action planning.	4.00	CM
4. States performance expectations clearly and checks understanding and commitment.	4.00	CM
5. Performs all the stages of result-based performance management system supported by evidence and required documents/forms.	4.12	CM
AVERAGE WEIGTHED MEAN	4.048	CM

Legend

- 4.21 – 5.0 - RM Role Model
- 3.41 – 4.2- CM Consistently demonstrates
- 2.61 -3.4 - MTD Most of the time demonstrates
- 1.81 – 2.6- SD Sometimes demonstrates
- 1.0 – 1.80 - RD Rarely demonstrates

Data reveal the following scores on each component under the competency on people performance management respectively; makes specific changes in the performance management system or in own work methods to improve performance (e.g. does something better, faster, at lower cost, more efficiently; improves quality , customer satisfaction, morale, revenues) (4.12)

sets performance standards and measures progress of employees based on office and department targets (4), provides feedback and technical assistance such as coaching for performance improvement and action planning (4), states performance expectations clearly and checks understanding commitment (4) and performs all the stages of result-based performance management system supported by evidence and required documents/forms (4.12).

Table 2 shows that the school heads exemplified the competencies consistently based on the average weighted mean of 4.048 which is a good indicator of positive people performance management.

Table 3.

Performance of school heads based on the OPCRF based on the Leadership Competencies in terms of People Development

People Development	WM	VI
1.Improves the skills and effectiveness if individuals through employing a range of development strategies.	3.52	CM
2. Facilitates workforce effectiveness through coaching and motivating/developing people within a work environment that promotes mutual trust and respect.	4.10	CM
3.Conceptualizes and implements learning interventions to meet identified training needs.	4.00	CM
4. Does long-term coaching or training by arranging appropriate and helpful assignments , formal training, or other experiences for the purpose of supporting a person's learning and development.	4.00	CM
5. Cultivates a learning environment by structuring interactive experiences such as looking for future opportunities that are in support of achieving individual career goals.	4.12	CM
AVERAGE WEIGTHED MEAN	3.948	CM

Legend

- 4.21 – 5.0 - RM Role Model
- 3.41 – 4.2- CM Consistently demonstrates
- 2.61 -3.4 - MTD Most of the time demonstrates
- 1.81 – 2.6- SD Sometimes demonstrates
- 1.0 – 1.80 - RD Rarely demonstrates

Table 3 shows the respective scores of each component under the competency of people development, improves the skills and effectiveness of individuals through employing a range of development strategies (3.52) facilitates workforce effectiveness through coaching and motivating/developing people within a work environment that promotes mutual trust and respect (4.10) conceptualizes and implements learning interventions to meet identified training needs (4.00), does long term coaching or training by arranging appropriate and helpful assignments,

format training, or other experiences for the purpose of supporting a person's learning and development (4.00) and cultivates a learning environment by structuring interactive experiences such as looking for future opportunities that are in support of achieving individual career goals (4.12).

The average weighted mean is 3.948 which means that the school heads enacted the competencies consistently demonstrates.

2. Common leadership challenges experienced by the school heads

After conducting unstructured interview with the school heads, the researcher clustered and classified the responses in terms of leadership challenges to the five that they commonly experienced.

These are as follows:

- Overloaded tasks to accomplish
- Lack of time to accomplish urgent paper works
- Lack of time performing instructional coaching
- Confusion on the duties to accomplished
- Type of subordinates to manage

3. Competencies do the school heads believe that they need more assistance

The following competencies in leadership was rated by the participants as the most needing of assistance.

These are as follows:

- Developing programs to prevent teacher burnouts
- Coaching instruction in terms of literacy and numeracy
- Conducting trainings
- Planning and executing projects with the community
- Preventing burnout in the accomplishment of tasks

4. Leadership enhancement tips may be suggested to support the school heads in terms of their leadership skills.

- Maintain positive rapport with the teachers
- Attend to the needs of the school stakeholders

Tune in all tasks according to our job description

Develop school based trainings

Act on time, be effective at all times

Reflect on your leadership style

Energize others through your compassion and motivation

Never settle for better, do the best

Define your leadership based on the needs of the school and not on your Wants

Attitude above all the skills must be given attention

VII. Recommendation

The research recommends the following:

1. Conduct regular leadership style reflection based on the three competencies and enhance the performance in each component.
2. Conduct enhancement activities for the school heads
3. Implement the MATDARENDA Tips

VIII. References

- Ancel, B. (2011). The Role of the Assistant Principal in Junior High Schools/Middle Schools in the State of Illinois. Unpublished master's thesis. Southern Illinois University, Carbondale.
- Auclair, J (2011). The position of the Middle Level Assistance Principal As Training for the Instructional Leadership Role of Principal. Unpublished doctoral dissertation. The University of Connecticut, Storrs.
- Austin, D.B. & Brown,H.L, Jr (2009). Report of the assistant principalship of the study of the Secondary school principalship. Reston, VA:National Association of Secondary School Principals.
- Black, A. (2008). Clarifying the role of the assistant principal, NASSP Bulletin.
- Boardman, L. W., Gran, J. M., & Holt, A.E. (2010).The duties and responsibilities of assistant principal, NASSP Bulletin.
- Brown, L & Rentschler ,J. (2009), Why don't assistant principals get the principalship? NASSP Bulletin.

- Brunner, C. (2005). Linking Data and Learning: The Grow Network Study. *Journal of Education for Students Placed at Risk*.
- Bush, J. (2007). Instructional leadership role of the elementary school assistant principal as Perceived by elementary school assistant principals. Unpublished doctoral dissertation, Wayne State University, Detroit, MI.
- Calabrese, R. (2001), Effective Assistant Principals: What do they do ? *NASSP Bulletin*, 75, 68-74. 133 Calabrese.
- Fleishman, R. (2010). A study of certain aspects of the assistant participation in selected secondary schools in the state of Maryland. Unpublished doctoral dissertation, Duke University, Durham, NC, Flowers, I.V. (1929). Best use of the Vice Principal's time. *Baltimore Bulletin of Education*.
- Frazier, C.R. (2002). Roles and Responsibilities of public middle school, junior high school, and high schools in the state of Maryland. Unpublished doctoral dissertation, Duke University, Durham, NC, Flowers, I.V. (1929). Best use of the Vice Principal's time. *Baltimore Bulletin of Education*.
- Gaston, D.W. (2005). Defining the roles and responsibilities of public school assistant principals in Virginia. Unpublished doctoral dissertation, College of William of Mary Williamsburg, VA.
- Glanz, J. (2012). Dilemmas of assistant principals in their supervisory role: Reflections of an assistant principal, *Journal of School Leadership*.

Continuous Improvement Implementation and Its Implication to School Effectiveness: The Case of Sarangani Division

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Introduction

Continuous improvement program in organizations is essential in today's competitive environment. It has become a famous catchphrase in the field of education. Educational institutions are focusing continuous improvement at the system level to improve the process (or steps) that take inputs (e.g, financial investments in teacher training) and produce outcomes (e.g., educating children) through tests of measurable change (Langley et al. 2009).

The Department of Education (DepEd) implements the education reforms outlined under the Basic Education Sector Reform Agenda which aims to systematically improve critical regulatory, institutional, structural, financial, cultural, physical and informational conditions affecting primary education on the ground. Through the excellent relationship of Philippines Australia and Human Resource Organizational Development Facility (PAHRODF), DepEd was able to capture Total Quality Management in Education. One best model of this innovation was the building of the CI models in 34 schools in 2012 where DepEd installed a Continuous Improvement (CI) process to help achieve the Key Reform Thrusts (KRT). Continuous improvement projects were implemented in schools using the CI methodology for six months to provide solutions to identified priority improvement area.

Considering CI as a learner-centered program, its innovations focused on the fundamental education regarding access, quality and governance. Examples of CI innovations that focus on teaching-learning is improving students' performance regarding Reading, Mathematics, Science and other major subjects and class attendance. Enhanced mechanisms to address the gaps on delayed release or liquidation of MOOE is an example of innovation on governance. The outcome of these improvements has become commonplace and well-documented that eventually bloomed in education.

The Department of Education-Region XII was involved in the CI program where six division offices were piloted namely Cotabato City, Cotabato Province, South Cotabato, Sultan Kudarat, General Santos City and Sarangani Province. Division CI teams immersed in the journey and successfully finished the CI project in seven months. In Sarangani division, seven sampled schools were piloted for CI methodology. However, despite CI benefits towards effective work process, CI teams had encountered challenges in the implementation and sustainability of the CI innovations towards school improvement for the 21st century.

Statement of the Problem

This study sought to determine whether the status of continuous improvement implementation affects school effectiveness in the four elementary pilot schools of the Department of Education-Sarangani Division.

Specifically, this study sought to answer the following questions:

1. What was the level of Ci implementation of the four elementary pilot schools of Sarangani division in terms of:
 - a. Academic qualifications and professional experience;
 - b. Teachers' adequacy and loading;
 - c. Instructional processes, methodologies and learning enhancement opportunities;
 - d. Assessment of academic performance; and
 - e. Administrative support for effective instruction?
2. What were the common themes and meanings of continuous improvement as perceived by principals, teachers, students and stakeholders?
3. What were the sentiments of stakeholders and beneficiaries on the relevance of CI in school improvement?

Literature Review

Continuous Improvement Defined

Continuous improvement has many definitions as a process. Collins and Wilkinson et al (1994) describe it as an approach to quality assurance that involves creating a culture concerned with quality as an essential product/service delivery. Bessant also describes CI as "a company-wide process of specific and continuous incremental innovation," where significant innovations with high frequency result in a cumulative positive impact on performance. Deming (2003) who is a pioneer in this field, defines it as "reliable improvements that increase success and reduce failures". These advances consider the models of the companies such as Lincoln Electric Company put together a training program where employees were able to attend classes at night for a low fee. With this continuing education, employees were more likely to achieve better positions in the company. Further, companies understood the benefits of sharing profits; therefore, profit sharing plans were crafted to acknowledge individuals based on their contributions to improvements (Deming 2003).

Continuous improvement is defined as (Bessant et al.,1994) "a company wide process of focused and continuous incremental innovation" while Juergensen, (2000) describes Continuous Improvement as "improvement initiatives that increase successes and reduce failures". Studies reveal that one of the earliest documented 14 examples of the application of CI started at a Scottish shipbuilding company, which recognized a reward system for employees based on the improvement or introduction of new methods, machine, or hand tools in the process. This system also awarded improvements or inventions concerning carrying practices, prevention of accidents, ways to avoid material waste, render superior quality or improve economic performance (Bessant et al.,1994).

Kossof (1993) in his study described CI as an ethos in organization that aims at eradicating all systems through sustained improvement. An increasing body of research believes that CI can be a extreme change brought about a change in technology and innovation or it may be because of a gradual improvement brought about over time. Moreover, continuous (quality) improvement is the act of incorporating quality improvement into the daily work of individuals in the system. It is a characteristic, or rather a set of three attributes, of an organization that is both designed and managed to improve over time vis-à-vis desired outcomes in light of specific system aim (Kossof 1993).

Thus, 'continuous', in this sense, is a qualifying adjective of quality improvement. It implies three organizational characteristics. The first is the frequency of quality improvement work then, the depth and extent of its integration at different levels of the organization. The third is the extent of contextualization with a system of work processes. A group characterized as engaging in continuous quality improvement, the work should be characterized by regularity and constancy. As such, an organization would not qualify as a continuous improvement organization if it engaged in a one-off quality improvement project.

So much is readily evident, that 'continuous' requires regularity and high frequency. However, the rate of improvement work is, in itself, lacking to identify an organization that adopts continuous improvement practice. It is a team that carries out several unrelated, discontinuous, and non-sequential quality improvement projects with a high degree of fidelity (within that particular project). Such an organization would be regularly engaging in quality improvement work, but that work would not be continuous improvement requires a second feature: That quality improvement work is thoroughly infused in the day-to-day work of individuals. The only way for quality improvement work to be truthfully continuous is if it is woven into the fabric of the regular work that individuals are constantly doing (Arditi, D. & Mochtar, K 2000).

Moreover, Loeb & Plank (2008) believe that the continuous improvement process is iterative and cyclical where schools and districts can work toward many goals over time. However, they further said that allowing schools and districts to focus on fewer goals at a time and later concentrate on others may help them achieve better results in the long term. The challenge of reducing the number of goals that schools must reach, of course, is the high number of competing demands that schools currently manage. Nonetheless, ensuring that goals are clear, measurable, and actionable, while reducing their number as feasible, can support continuous improvement efforts.

Research Design

This study will combine quantitative and qualitative research methods. It will use survey method in determining the status of CI implementation of the pilot schools in DepEd Sarangani. To provide triangulation information, the researcher will also conduct focus groups and key informant interviews. Three focus group sessions will be done among four cohort groups composed of teachers and principals to dig deeper into the challenges of CI implementation. The focus groups will be further strengthened by a series of key informant

interview with principals, teachers, parents, students and stakeholders to provide views and dimensions of the CI implementation. In addition, the researcher will also conduct documentary analysis and actual observations to validate information obtained from the survey and KII.

Respondents of the Study

The respondents of this study will be the 196 teachers, 35 CI members, seven (4) school heads of the CI pilot schools and seven (7) PTA presidents.

Simple random sampling method through drawing of lots was conducted to the teacher. As all members of the population have an equal chance of becoming a research participant, this is said to be the most efficient sampling procedure. In order to conduct this sampling strategy, the researcher will define the population first, list down all the members of the population, and then select members to make the sample.

Data Gathering Procedure

A survey will be used in this study because it enables the researcher in formulation of generalizations. Specifically, three types of direct-data survey will be included in this study. These are CI Assessment Checklist, School Effectiveness survey questionnaire, key informant Interviews and focus group discussion.

Key informant interviews and three sessions of FGD will be conducted to each of the four schools to provide further insight about the results of the survey. The direct-data type of survey is a reliable source of first-hand information because the researcher directly interacts with the participants.

Two types of data will be used: the primary and the secondary data. The primary data will derive from the answers of the respondents in the self-administered survey questionnaire prepared by the researcher. In addition, the information that will be obtained from the KII and FGDs will also serve as primary research data that will support the study. The secondary data on the other hand, will be derived from the performance indicators like enrolment rate, drop-out rate and participation of the four schools with CI.

For this purpose, a self-administered survey questionnaire will be given to the respondents to answer. The respondents will be given 5 days to complete the survey questionnaire upon request. After collecting the questionnaires, the responses will be tallied, computed, analysed, and recorded.

The key informant interview will be administered to the 35 CI team members of the seven CI pilot schools. Interviewees will be given time according to their convenience. Choices will be given for the interviewees who will answer the interview questions through personal interview.

Focus group discussion will be conducted to the five (5) CI members of each school. They will be informed ahead about the date and the manner of the FGD. The participants will be given the opportunity to choose the place for FGD.

Data Interpretation

Data interpretation will triangulate information obtained from the survey and focus group discussion. The researcher will seek patterns and themes and issues-trying to connect the answers from the statistical results , KII and FGD to provide a deeper understanding on the issue on CI implementation in Sarangani Division.

The data interpretation process will involve validation and revalidation of themes and moving back and forth for the quantitative information and qualitative data until a clear picture of the issues involved is created. Until such time that there will have a saturation point reach in the quality of themes generated, the researcher will continue to probe for answers to the research problems as mentioned in Chapter I.

Statistical Treatment and Analysis

To determine the level of CI implementation of the four elementary pilot schools of Sarangani division, mean will be used.

To determine the level of CI implementation and the level of school effectiveness, weighted mean will be used.

Level of Status of Continuous Improvement Implementation on Academic Qualifications

As shown in Table 2, two (2) schools achieved **Very Satisfactory** status in their academic qualifications and professional experience. These are Kiamba SPED Central Elementary School with a mean rating of **3.74** and Malalag SPED Central Elementary with a mean rating of **3.57**.

Table 2
Mean Scores of Continuous Improvement Implementation on Academic Qualifications

School	Mean	Descriptor
Glan SPED CES	3.44	Satisfactory
Kiamba SPED CES	3.74	Very Satisfactory
Malandag SPED CES	3.19	Satisfactory
Malalag SPED CES	3.57	Very Satisfactory

Further, the data reveal that Glan SPED Central Elementary School obtained a mean rating of **3.44** and Malandag Central SPED Center obtained a mean rating of **3.19** which means **Satisfactory**.

Level of Continuous Improvement on Teacher's Adequacy

Table 3 presents the data about level of CI implementation of the four elementary schools of Sarangani Division in term of teachers' adequacy and loading.

Three (3) schools obtained **Very Satisfactory** status. These schools are Malandag SPED Central Elementary School with a mean rating of **3.72**, Kiamba SPED Central Elementary School with a mean rating of **3.69** and Malalag SPED Central Elementary School with a mean rating of **3.58**, while Glan SPED Central Elementary School obtained a mean rating of **3.12** which means satisfactory.

Level of Continuous Improvement on Teachers' Adequacy

This study also determined the level of continuous improvement on teachers' adequacy. Table 3 reveals that three schools performed Very Satisfactory. They are Malandag Central SPED Center with a mean of **3.72**; Kiamba Central SPED Center obtained a mean of **3.69**; and Malalag Central SPED Center with a mean of **3.58**. On the other hand, Glan SPED Center performed Satisfactory with a mean of **3.12**.

Table 3

Mean Scores of Continuous Improvement Implementation on Teachers' Adequacy

School	Mean	Descriptor
Glan SPED CES	3.12	Satisfactory
Kiamba SPED CES	3.69	Very Satisfactory
Malandag SPED CES	3.72	Very Satisfactory
Malalag SPED CES	3.58	Very Satisfactory

Level of Continuous Improvement Implementation on Instructional Processes

The data in Table 4 show the level of CI implementation of the four elementary schools of Sarangani Division in term of instructional processes. Three CI pilot schools obtained **Very Satisfactory**. These are Malalag SPED Central Elementary School with a mean rating of **4.01** followed by Kiamba SPED Central Elementary School with a mean rating of **3.83** and Malandag SPED Central Elementary School with a mean rating of **3.80**. Further, Glan SPED Central Elementary School obtained a mean rating of **3.30** which means **Satisfactory**.

Table 4

**Mean Scores of Continuous Improvement Implementation on
Instructional Processes**

School	Mean	Descriptor
Glan SPED CES	3.30	Satisfactory
Kiamba SPED CES	3.83	Very Satisfactory
Malandag SPED CES	3.80	Very Satisfactory
Malalag SPED CES	4.01	Very Satisfactory

Level of Continuous Improvement Implementation on Assessment of Academic Performance

Table 5 reveals that the four schools obtained a **Very Satisfactory** rating. Malalag SPED Central Elementary School obtained a mean rating of **4.40**; Kiamba SPED Central Elementary School obtained a mean rating of **4.34**; Malandag Central Elementary School obtain a mean rating of **4.31** and lastly, Glan SPED Central Elementary School obtain a mean rating of **4.20**.

Table 5

**Mean Scores of Continuous Improvement on
Assessment of Academic Performance**

School	Mean	Descriptor
Glan SPED CES	4.20	Very Satisfactory
Kiamba SPED CES	4.34	Very Satisfactory
Malandag SPED CES	4.31	Very Satisfactory
Malalag SPED CES	4.40	Very Satisfactory

Level of Continuous Improvement on Administrative Support for Effective Instruction

Table 6 presents the data about the level of CI implementation of the four elementary schools of Sarangani Division in terms of Assessment of Academic performance. Data reveal that all schools involved in the study obtained a **Very Satisfactory** rating. Kiamba SPED Central Elementary School with a mean rating of **4.46**; Malandag Central Elementary School with a mean rating of **4.43**; Malalag SPED Central Elementary School with a mean rating of **4.26** and Glan SPED Central Elementary School with a mean rating of **3.61** which is described as **Satisfactory**.

Table 6
**Level of Continuous Improvement on Administrative Support
for Effective Instruction**

School	Mean	Descriptor
Glan SPED CES	3.61	Satisfactory
Kiamba SPED CES	4.46	Very Satisfactory
Malandag SPED CES	4.43	Very Satisfactory
Malalag SPED CES	4.26	Very Satisfactory

Meaning of Continuous Improvement Implementation among Stakeholders

Meaning	Contexts
Beneficial	Continuous improvement is a process that has been used to help learners improve their reading and numeracy skills where innovations are introduced and used.
Contributed to School development	Continuous improvement refers to the initiatives implemented by schools to improve public education processes and outcomes.
Fun	Continuous improvement deals about introducing learning activities inside the classroom that are tailored fit within the learning level of every learner where games are integrated in each lesson.
Interactive Process	Continuous improvement involves interactive process where learners are given the opportunity to participate in groups with real hand learning experiences using technology or through group activities.
Partnership experience	Continuous improvement is a process where all stakeholders are provided with opportunity to extend their caring acts to help schools improve its systems.

The findings are presented according to the meaning of continuous improvement: (i) beneficial, (ii) contributed to school development, (iii) fun, (iv) interactive process, and (v) partnership experience. Verbatim quotes from the study participants are labelled in terms of their classification and school.

(i) Continuous Improvement as Beneficial

Participants viewed continuous improvement as beneficial where learning improvement among learners is considered the top priority among teachers:

“CI is a great help to the teachers. It adds more activities in the teaching and learning process.”

Teacher Informant, Malalag Central SPED Center)

“Using the CI project, materials can be used standalone, meaning in can be used in some other time.”

Teacher Informant, Malalag Central SPED Center

“Yes! The CI implementation is really effective, and hopefully we could also help other schools who have struggling readers. The role after the training, so that other school could also benefit from it, because for us here at Malandag Central towards effectiveness in this school, our CI project was very beneficial, towards our struggling readers. We did a study, on pull out system and Marungko based reading tool, a systematic approach towards reading development in Filipino.”

Teacher Informant, Malandag Central SPED Center

“Daku gid ang nabulig sang CI project kag tungod sa teamwork sa mga teachers. Para sa akon, nagabulig ang CI sa reading skill sang mga bata labi nag id sadtong mga kabataan nga nabudlayan magbasa. Daku gid nga bulig ang CI.” (CI is very helpful in school through the team work among CI team members. For me, CI improves the reading skill of the struggling readers. It is very useful).

Parent Informant, Malandag Central SPED Center

“One teacher said that learners participated well and enjoyed the activities.”

Teacher Informant, Malalag Central SPED Center

“Oo mam, nakatabang ang CI ug kini namugna para matabangan ang mga bata gamit ang discovery method. Tungod niani, matabangan ang mga bata sa mga skills nga ilang magamit sa ilang kinabuhi.” (Yes mam, because CI has been initiated to help learners learn independently through discovery

method. Through this innovation, learners are being equipped with skills that that would prepare them for life.)

Parent Informant, Glan Central SPED Center

However, doing CI inside the classroom needs support from the school heads to make it more beneficial and sustainable:

“Dapat ang principal jud magpaluyo sa mga teachers para maimplement ang proyekto.”(The principal should have the drive to push and motivate teachers in order to implement project.”)

Parent Informant, Glan Central SPED Center

“Ang pagbudget kinahanglanon jud sa pagtudlo ug sa ppageskwela sa mga bata. Kung muingon gani ang principal nga way budget para sa training, wala jud pod mahimo ang mga magtutudlo.”(Budget is really necessary to teaching and learning. When principal says, there I s no allocation for the training, the teachers can’t do about it.)

Parent Informant, Glan Central SPED Center

“I hope that there will be an allocation or budget for our needs in implementing the reading program.”

Teacher Informant, Kiamba Central SPED Center

“I know the school provided materials for the project at the start but later it was not fully implemented because the printing of materials was not done.”

Teacher Informant, Glan Central SPED Center

“So, in this case, teachers are the ones spending their own money for their learner’s needs. So, support from the school principal is really needed.”

Teacher Informant, Glan Central SPED Center

“Our reading teacher suggested that there is a need of reading materials.”

Teacher Informant, Kiamba Central SPED Center

””There is no reproduction of reading materials has been done yet. We are given with very limited sheets of bond paper. Teachers learned to recycle the test papers maximizing each page. In my case, I usually make a “Tarp paper” out of the junk bond paper, I use to recycle paper. What I am doing in my class is that, I print stories and distribute the copies to all learners for their portfolio because I require every learner to have a portfolio where they can keep various reading materials.”

Teacher Informant, Kiamba Central SPED Center

“There are no visual aids given to us. Teachers produce their own materials. We have a very limited supply from the office, two reams of bond papers being shared by eight sections.”

Teacher Informant, Kiamba Central SPED Center

“Our CI reading module needs to be reproduced. It is a very good material because it consists everything in the CI implementation including the lesson exemplar.”

Teacher Informant, Kiamba Central SPED Center

Study participants also tended that parents support was also vital to help learners improve in their academic and social life:

“For fast learners, they have very supportive parents and financially parents provide their needs.”

Teacher Informant, Glan Central SPED Center

“We also consider parents’ support as a factor to learners’ achievements We have parents who are very cooperative and who are willing to support their children by sending and fetching them in school. Even how much the school is trying to keep learners in school and how strongly involved the community but without the support of parents, we cannot do it.”

Principal Informant, Kiamba Central SPED Center

“So, there is an agreement between parents and school that parents should ensure that their children go to school everyday because teachers will their best to help them read. Te reading remedial program was conducted. If only parents could send their children in school everyday, each learner will be a reader.”

Teacher Informant, Kiamba Central SPED Center

“Parents involvement is also very important in the reading program.”

Teacher Informant, Malandag Central SPED Center

“Ang suporta po ng mga magulang ay napakahalaga. Ang mga guro ditto ay nag eenhance lang ng mga skills ng mga bata. Napaka supportive po ang mga magulang ditto kahit financially, todo bigay ang support nila.”(Parents’ support is very important/ Teachers here are just enhancing the skills of learners.Parents here are very supportive in all aspects,financially, they share their best.)

Parent Informant, Malalag Central SPED Center

“Since learners are allowed to borrow the materials and take it home, parents can help their children improve their Math skill.”

Teacher Informant 3, Malalg central SPED Center

“Parents support is very important because not all parents are always there for their children. Learners in the lower sections have parents who are not so supported.”

Teacher Informant, Malalag Central SPED Center

“With the help of the parents, the materials printed were laminated and covered. It helps our materials last longer.”

Teacher Informant 2, Malalag Centrl SPED Center

“Parents have a great factor. One strategy here is the pupil mentoring. Parents support is very important especially for those learners who have reading challenges.”

Teacher Informant 1, Malalag Central SPED Center

“Partnership with parents is very important especially those who are identified as struggling readers.”

Teacher Informant 3, Malandag Central SPED Center

On the basis of the findings, continuous improvement implementation may be more beneficial with two facilitating factors: (i) Strong support from the school head by providing all the materials needed including the reproduction of materials; and (ii) strong partnership from parents especially those learners who have reading and numeracy challenges.

- (ii) Continuous improvement contributed to the development of the school processes and procedures

The study participants cited that continuous improvement helps the schools improve its processes and procedures specifically in the classroom setting.

“Naa koy bata dinhi nga nay mild autism ug nakita nako nga nag improve iyang performance sa klase.”(I have a daughter here is diagnosed with mild autism. I found her improved in her class.)

Parent Informant, Glan Central SPED Center

“Meron po akong alam sa Math interactive games at sobrang na appreciate ko sya dahil nakatulong ito sa kaalaman ng mga bata lalo na sa multiplication. Malaking tulong ang CI project at lalong nagging interesado ang mga mag-aaral sa Math. Nag enjoy din sila habang natututo.”(I have a knowledge about Math interactive games. I really appreciate it because there is a development in the learning skills of the learners especially in multiplication. Yes CI project helps a lot. The learners become more interested in learning Math. They enjoy it and they realize they have learned something.)

Parent Informant, Malalag Central SPED Center

“In terms of activities, learners are more involved. It is very effective in the learning of the learners.”

Teacher Informant, Malalag Central SPED Center

Teacher factor was the greatest factor in helping schools improve. They were viewed as the most important component to sustain CI:

“I was assigned as science coordinator and I help teachers made a lesson plan or lesson exemplars as a result of the CI project which is REACTED. It means, recall, engage,act,collect,evaluate and deliberate. Based on the current lesson plan,you can also see similarities with REACTED, teachers find it easy to craft activities following the format.”

Teacher Informant 3, Glan Central SPED Center

“As a teacher, due to limited time of preparation, there are times that I used to lecture the whole time but using REACTED you can really see that learners enjoy and teachers feel fulfilment because you can see learners’ progress. You can really see that there is learning after the lesson.”

Teacher Informant I, Glan Central SPED Center.

“In our school, we have a very innovative and thoughtful teacher and she is able to inspire learners. We can see that learners’ reading skill is improving.”

Prinicpal Informant, Kiamba Central SPED Center

“Through CI project teachers were able to identify the root cause of the problem why pupils struggle to read. We have identified problem and were able to find solutions on the identified problem because it is research based. Thorough CI project, parents and community became more aware of their responsibility how they could help and support their children in school.”

Teacher Informant 2, Kiamba Central SPED Center

“I am not certain about how many teachers but when they echoed the CI process, they focused on how to improve learners’ comprehension, the manner of using the CI process in the lesson is to rephrase it and model it so that learners could say the right word and improve his/her vocabulary. Explicit teaching has been used.”

Teacher Informant 2, Kiamba Central SPED Center

“We are blessed with this journey because we were the ones who started the program. Although there were challenges but we survived it. I am very happy because I contributed something to our learners.”

Teacher Informant 2, Kiamba Central SPED Center

(iii) Continuous improvement is viewed as fun

Participants often highlighted that learning activities being used in CI are full of fun and motivated them to learn more:

“Nag enjoy kayo ko tungod kay nakita pod nako akong mga classmates na malipayon sa pagtuon. Gusto nako ang role plays ug katong lesson namo about homogenous ug heterogeneous nga gipa activity mi ug pizza gamit ang construction paper.”(I enjoyed it so much because I saw my classmates enjoyed while learning. I like role plays, games, and the lesson on homogenous and heterogeneous where we made pizza using construction paper.)

Pupil Informant 1, Glan Central SPED Center

“Ganahan ko sa heterogeneous na lesson katong gipadala I ni teacher ug materials para himuon na fruit salad gamit ang construction paper.”(I like heterogeneous lesson when our teacher required us to bring materials to come up with a fruit salad made of construction paper.)

Pupil Informant 2, Glan Central SPED Center

“Nag enjoy jud k okay daghan kayo mi activities. Naga recite mi sa among yell before mostart ug lesson.”(I enjoyed it because we have so many activities. We used to have our yell before we started our lesson.)

Pupil Informant 3, Glan Central SPED Center

“Naniniwala ako na malaki ang naitutulong ng CI project. Nakikita ko pong nagging mas interesado ang mga mag-aaral at na realize nila na may natutunan. sila.”(Yes CI project helps a lot. The learners become more interested in learning Math. They enjoy it and they realize they have learned something.)

Parent Informant, Malalag Central SPED Center

“ Exciting po ang mga games.” (Yes the games are exciting.)

Pupil Informant 1, Malalag Central SPED Center

“Marami po kaming natutunan at nag enjoy po kami dahil tinuruan kami kung paano matutunan ang Math na hindi masyadong mahirap para sa amin dahil sa mga games.”(We learned a lot and we enjoyed it because it teaches us to do the work very light its like a game.)

Pupil Informant 2, Malalag Central SPED Center

“Nag enjoy po ako sa mga activities sa tuwing ito ay may games.”
(I enjoyed the activities through games.”

Pupil Informant 3, Malalag Central SPED Center

“I really find learners enjoy the activities as if Math is not a burden. They really have fun in Math Lessons. CI has a great help especially to learners in lower sections.”

Teacher Informant 1, Malalag Central SPED Center

“Yes because it inspires them to learn Math in a fun way.It helps them conquer being skeptic in Math. Through CI project, it gives hope to learners by introducing new teaching strategies.”

Teacher Informant, Malalag Central SPED Center

“Nalipay ko mam satong kabalo nako magbasa. Gintudluan ko ni teacher sang sounds,alphabets kag damo nga mga games kaupod ko akon mga classmates. Nanamian ko magbasa kay kaupod ko akon mg amigo kag classmates. Nanamian ko magbasa kung kaupod ko akong mga friends.”(I was so happy that time because I improved my reading skill. My teacher started using sounds, alphabets and interactive activities where I enjoyed with my classmates. I love reading with my friends and classmates. Reading is fun with my friends.)

Pupil Informant 2, Mlanadag Central SPED Center

“Nagdamo na akon mga friends kag ginabuligan ko nila sa pagbasa. Nagabasa kami kag sadya siya basta upod ko mga friends ko.”(I gained more friends because they helped me to read. We read together and it was full of fun.)

Pupil Informant 3, Malandag Central SPED Center

“CI helped our learners. Through CI, learners were able to improve their reading skill through picture reading. Materials were very useful and it made the learners enjoyed the activities.”

Teacher Informant 2, Malandag Central SPED Center

(iv) Continuous improvement is an Interactive Process

The study participants highlighted continuous improvement as a process where hands-on learning activities and real world experiences are given to learners through an aid of technology and differentiated instruction:

“Giganahan ko sa klase kay daghan activities. Mas dali sa akua magsolve ug enjoy pod kung nay groupings. Naga yell man mi before magstart ug lesson.”(I enjoyed it because we have so many activities. I find it easier to solve and I love working in group. We used to have our yell before we started our lesson.)

Pupil Informant 3, Glan Central SPED Center

“Hindi lang po yon puro games lang dahil meron po kaming natutunan at dapat yon po ang ginagawa para lahat ng mga mag-aaral ay nasa paarala. Sa grpings po naming, pag may mga members na hindi po alam ang tamang sagot, titnutulungan po naming na makuha po nila ang tamang answer po.”(That is not only purely games but we learned a lot and that should be done so that all learners will be in school. If some members don't know the answer, we help them arrive at the the correct answer.)

Pupil Informant 3, Malalag Central SPED Center

“Yong mga games po sa Math ay napahalaga po para mag enjoy yong mga mag-aaral sa mga lessons lalo na doon sa mga mag-aaral na nahihirapan sa Math lessons.”(Games in Math lessons are very important so that learners will enjoy the lessons especially those learners who have a hard time in math lessons.)

Pupil Informant 1, Malalg central SPED Center

“Gusto ko rin po yong multiplication blocks na parang laro din siya.”(I also love multiplication blocks that is game like.)

Pupil Informant 2, Malalag Central SPED Center

“The materials are very attractive and it fits the learning needs of the learners. There are puzzles, mazes and other interactive activities. Its just like a game where there is fun in learning.”

Teacher Informant 3, Malalag Central SPED Center

“Another is, the capacity of the learners where CI materials were crafted to all types of learners. Our learners here are very extreme, there are learners who are very fast and there learners who are also slow in terms of Math learning.”

Teacher Informant 3, Malalag Central SPED Center

“I really find learners enjoy the activities as if Math is not a burden.”

Teacher Informant 1, Malalag Central SPED Center

“Through the interactive game, teacher has less talk.”

Teacher Informant 2, Malalag Central SPED Center

Sentiments of Stakeholders on Continuous Improvement Implementation

Category	Sentiments
Parents	<ul style="list-style-type: none"> a. Teachers attitudes—positive or negative—is crucial in the successful CI implementation b. A critical incident is the lack of understanding of teachers on the role of the school on child protection in the CI implementation
Pupils	<ul style="list-style-type: none"> a. Teacher’s attitude can either be contributing or hindering factor towards CI implementation b. Learning activities should be interactive, differentiated and fun.
Teachers	<ul style="list-style-type: none"> a. Provision of materials in all activities is an enabling factor. b. Teacher’s initiative is one way of addressing a problem inside the classroom. c. Technical support is necessary in the CI implementation.
Principals	<ul style="list-style-type: none"> a. Teachers’ attitude is a great factor towards learners’ development. b. Parents’ support is vital to sustain CI implementation. c. Support from school head is important to CI implementation.
Stakeholders	<ul style="list-style-type: none"> a. Strategizing activities is vital to cope with the demand of time. b. Diagnosing a problem in relation to CI implementation can improve the process. c. Prioritizing activities is a s good strategy to sustain CI implementation.

The findings are presented according to the sentiments of stakeholders: (i) parents' sentiments; (ii) pupils' sentiments; (iii) principals' sentiments; and (iv) stakeholders' sentiments:

(i) Parents' Sentiments

Parent's role in education plays a vital role towards learners' development. Support and involvement in school related activities are motivating factors to help the school attain its vision. In the case of Sarangani division, amidst support extended, there are still gaps that need urgent attention. Listening to voice of the parents is one way of improving school system. Study participants shared:

“Ang mga guro po limitado lang ang oras nila sa sobrang dami ng responsibilidad pero kahit papaano binibigay naman nila yong best nila. Pero may mga guro na masyadong mabait sa mga bata ngunit meron naman ding trabaho lang po talaga ang pagtuturo.”(Teachers have a limited time since they have lots of responsibilities but in any way, they are doing their best. There are teachers are diligent and patient in teaching the learners but there are some teachers who just do their job passively.)

Parent Informant, Kiamba Central SPED Center

“Ang pag-uugali po dapat ng mga guro ay maganda, yon bang walang takot na manaig sa mga bata. Ang ibig ko pong sabihin ay yong pag-uugali dapat ng mga guro sa mga bata ay mabait para matuto ang mga bata.”(Teachers' attitude should be wholesome where fear among students have no place. I mean is the behaviour of teachers towards their learners. They should be kind enough so that learning would take place.)

Parent Informant, Malalag Central SPED Center

“ I appeal mam na tagaan ug dakong oras ang pag implement sa CI project gikan sa sa principal para mas makabenepisyo ang mga teachers, mga bata ug ginikanan. Sa akong tan aw, epektibo nga strategy ang CI para matabangan ang mga bata sa pag develop ug mga praktikal nga skills. Tungod pod sa CI, matabangan ang mga teachers para mamahimong sadya ug may kabuluhan.”(I appeal, that CI should be given enough time and focus by the principal to make it more beneficial to teachers, learners and parents. I see CI as an effective strategy to help learners develop practical skills. It also helped teachers to make the lesson more interesting and meaningful to learners.)

Parent Informant 2, Glan Central SPED Center

Kanang mga activities bitaw mam dapat ayuhon usa sa taas nga level bago sya ipa implement sa mga eskwelahan. Ang mga principal pod dapat pantay sya sa tanang teachers para mahangkat niya ang mga teachers sa pagtudlo ug maayo. Ang CI project dili lang pod unta mafocus sa mga slow learners. Ako man gud naobserbahan nga ang mga magtutudlo nag focus lang unsaon pag improve sa mga bata. Dapat mag gahin pod sila ug program para sa mga bata nga naga excel sa klase. Balanse dapat ang programa sa paghatag ug oportunidad sa tanang mga bata par mag improve sila. Ang mga fast learners dapat tagaan pod ug panahon ug mga activities nga nay matabang sa ilaha.”(Activities should be polished first in the higher level before it is implemented in schools. Principal should be fair to all teachers in order to encourage all teachers to excel in their teaching endeavour. Continuous improvement project here should only not focus to slow learners. I observe that the teachers focus on how to help learners improve but also the school should look for learners who are academically inclined. The programs should be balanced or giving opportunities to all learners to improve. Fast learners should also be given time and meaningful activities.)

Parent Informant 1, Glan central SPED Center

“I observed that the activities being conducted or hosted school really affects our contact time with learners. I suggest that the school should minimize hosting big events. Like this, year, our school has hosted so many activities so our learners’ interest is really affected. I really suggest that implementing activities should be minimized.”

Parent Informant 2, Glan Central SPED Center

“Yes, we need to continue the reading program because learners need it. We have learners here who live in a squatter’s area near the seashore. Most of them tend to be absent in the middle part of the school year. With that, the teachers are conducting home visit to talk to the parents and encourage learners to be in school. Teachers need to continue do the home visits and at the same time educate the parents to send their children everyday in school. As I noticed, some parents do the gambling and they forget to remind their children to go to school everyday.”

Parent Informant, Kiamba Central SPED Center

“The principal should supervise the teachers who are doing the reading tutorial activities. There are teachers who are diligent and patient in teaching the learners but there are some teachers who just do their job passively. I really agree that teachers should be caring enough for their learners, teaching them at their best. There are learners who play around school campus. I think, there must be somebody who would monitor them.”

Parent Informant 2, Kiamba Central SPED Center

“Yes, we need to continue math interactive games though I have a limited knowledge. It is better if it is done everyday so learners can easily master it. Multiplication is quite tough for learners but because of the math interactive game, learners tend to focus their attention in studying instead of playing computer games. I also look forward that more interactive games should be done. Materials should be reproduced more enough to every learner. What we need to improve is the attention and focus towards learners who have a hard time in Math especially teachers’ patience needs to be extended. Learners are really scared to teachers who are quite unkind to them. They become harsh sometimes. So, patience is very important.”

Parent Informant, Malalag Central SPED Center

“As a parent and PTA president, I wish that learners who will graduate in this should be independent readers. CI implementation should be sustained because it has been a part of the achievement of the SBM Level 3. I hope CI team will continue to extend their effort and patience. With so many visitors from other Divisions and regions like Naga and Zamboanga, they appreciated our school resources like CI, school reading center. It has helped a lot to learners. Also, I hope the reading center will become more convenient and comfortable for learners to reading. I wish there is a place here in our school where learners can stay comfortably while reading with eco-friendly facilities.”

Parent Informant, Malandag Central SPED Center.

(ii) Pupils Sentiments

The schools exist to help learners achieve their aspirations in life. They are the central focus of all the programs and initiatives of the Department of Education. However, amidst those prioritized learning opportunities, learners experience challenges inside the classroom.

The pupil participants of the study highlighted the attitudes of teachers that wanted to experience inside the classroom. They shared:

“I like a teacher who is fun when introducing a lesson. I also would like to have a teacher who can deliver the lesson very well and who is smiling.”

Pupil Informant 1, Glan Central SPED Center

“I also like a teacher who is always in good mood. Some of my classmates are not too polite sometimes that’s why my teacher gets mad. I know when my teacher is in good mood because he/she cracks jokes.”

Pupil Informant 2, Glan Central SPED Center

“I love our teachers gave us time to discuss with my classmates. I also like our teacher is serious in the lesson but cracked jokes sometimes so that we won’t get tired and bored.”

Pupil Informant 3, Glan Central SPED Center

Moreover, pupil participants also mentioned about teachers’ competence in the delivery of lessons. They shared:

“I really wanted to go to high school.”

Pupil Informant 1, Kiamba Central SPED Center

“I lack reading practice. When I don’t understand the story, I ask my older brother to help me. I like teachers who are kind and joyful.”

Pupil Informant 2, Kiamba Central SPED Center

“I like teachers who are kind and smart.”

Pupil Informant 3, Kiamba Central SPED Center

“I like a teacher who is fun when introducing a lesson. I also would like to have a teacher who can deliver the lesson very well and who is smiling.”

Pupil Informant 2, Glan Central SPED Center

“Yes the games are exciting. That is not only purely games but we learned a lot and that should be done so that all learners will be in school. Games in Math lessons are very important so that learners will enjoy the lessons especially those learners who have a hard time in math lessons. I want to tell to the learners that we should engage in games where we can learn something.”

Pupil Informant 1, Malalag Central SPED Center

“We learned a lot and we enjoyed it because it teaches us to do the work very light its like a game. I want it to that our teacher would do it always. If in case, we fail to get the correct answer, our teacher would give more practice until we get the correct answer.”

Pupil Informant 2, Malalag Central SPED Center

“The learners should be guided with correct answer. Sometimes, we are confused and our teacher doesn’t discuss the answer yet. Almost all our answers are the same. I enjoy the activities in Math.”

Pupil Informant 3, Malalag Central SPED Center

“I wish teachers will continue to reach out those learners who have struggles in reading. I hope those learners will really learn to read just like what happened to me. Teachers shared their time to help us read. I also want the parents support their children at home by helping them to read, give them allowance and ask them if they have needs in school. For me, this reading program should be continued so that when learners reach high school they can participate in school activities. In my experience, the time when I improved my reading. It boosts my confidence and I gain more friends. I am so happy that I improve in reading also my parents are happy with my achievement. With my teachers, they are also happy that I know how to read.”

Pupil Informant 1, Malandag Central SPED Center

“I wish the readin program will continue. I hope teachers will not get tired of teaching those pupils who have reading struggles. Through reading intervention, pupils gained more friends and found reading activities fun and enjoyable.”

Pupil Informant 2, Malandag Central SPED Center

“The school must continue to implement the reading tutorial because it is very helpful to learners.”

Pupil Informant 3, Malandag Central SPED Center

(iii) Teachers' Sentiments

Materials

“I know the school provided materials for the project at the start but later it was not fully implemented because the printing of materials was not done. So, in this case, teachers are the ones spending their own money for their learner's needs. So, support from the school principal is really needed.”

Teacher Informant 3, Glan Central SPED Center

“There is no reproduction of reading materials has been done yet. We are given with very limited sheets of bond paper. Teachers learned to recycle the test papers maximizing each page. In my case, I usually make a “Tarp paper” out of the junk bond paper, I use to recycle paper. What I am doing in my class is that, I print stories and distribute the copies to all learners for their portfolio because I require every learner to have a portfolio where they can keep various reading materials. There are no visual aids given to us. Teachers produce their own materials. We have a very limited supply from the office, two reams of bond papers being shared by eight sections.”

Teacher Informant 2, Kiamba Central SPED Center

“It seems like they have been so generous to us, its like too much (laughs). The principal should also know the CI process but we are a bit shy to tell our principal about the resources that we need. Our CI reading module needs to reproduce. It is a very good material because it consists everything in the CI implementation including the lesson exemplar Every reading teacher must have the copy of the modules from Grades one to six. Because based on our CI study, some garde six pupils have reading level of grade two so, we crafted modules..”

Teacher Informant, 1, Kiamba Central SPED Center

“We need financial support for the reproduction of materials as well as the validation of our reading modules. We need to post a big tarpaulin for all teachers to read. It will remind them of the CI process.”

Teacher Informant 1, Kiamba Central SPED Center

“We have no enough support in terms of supply from the school but if teachers could ask support from parents then, it can be provided. Sometimes we need supplies to be used for learners’ reading assessment. Since we lack supplies so we cannot fully implement the program. Activity sheets to really determine the reading comprehension of the learners. If we have activity sheets, we can easily track each learner and we can save time. We need references because we teach basic reading and it demands materials. We need a tape where teachers can use in teaching reading from alphabet to the higher level of reading. Also, we need reproduction of activity sheets because it is very important to assess the reading comprehension of the learners.”

Teacher Informant 3, Kiamba Central SPED Center

“Learners worksheets were not provided but teachers tend to find ways in order to provide learning activity sheets.”

Teacher Informant 3, Malandag Central SPED Center

“One hindering factor is budget that would reproduce more materials. The materials are quite expensive because they are all laminated. Materials should be reproduced enough for all teachers. I hope, more materials will be reproduced that is enough for every classroom and teacher.”

Teacher Informant 1, Malalag Central SPED Center

“We hope that our project can be noticed by Division Office. Also, reproduction of materials can be done. The CI team allot time for us. In terms of support, the admin gives support in the reproduction of materials. However, the materials reproduced are not enough for all teachers and learners. There are times that lesson cannot be implemented due to materials that are not available. Availability and reproduction of materials. It is better if the materials are available in every classroom. What we really need is enough materials that are available in every classroom. I hope this CI project could be a partnership program where parents and teachers have accountability in reproducing materials.

Teacher Informant 3, Malalag Central SPED Center

“Materials should be available inside the classroom so we can save time. Sometimes, we cannot use those materials because its not available for everyone.”

Teacher Informant 2, malalag Central SPED Center

“If we are only supported financially, I think all projects will be implemented but because of poverty, that would hinder to learners’ development. Teachers have limited resource as well as parents so, we need support from school in terms of learning materials and teaching aids.”

Teacher Informant 2, Glan Central SPED Center

(ii) Teachers Initiative

The study participants mentioned that as teachers finding ways to address issues in the teaching and learning process is one important skill of a teacher. Teacher participants shared that:

“In the classroom setting, not all needs are provided so the teacher would always spend his or her personal money to augment the needs of the learners in terms of teaching and learning materials. Teachers learned to recycle the test papers maximizing each page. In my case, I usually make a “Tarp paper” out of the junk bond paper, I use to recycle paper. What I am doing in my class is that, I print stories and distribute the copies to all learners for their portfolio because I require every learner to have a portfolio where they can keep various reading materials. Since, we are given a printer in our grade level, during my free time I print stories since I am handling lower sections. When I give assignments, learners will not find it hard to answer because they are given hard copies. There are no visual aids given to us. Teachers produce their own materials. We have a very limited supply from the office, two reams of bond papers being shared by eight sections. They use their own money for their learners. Parents are also supportive in terms of providing materials so, we should not rely everything to the office. It is the teacher who really finds ways. Sometimes, teachers are shy to ask anything from the principal because it is innate in them to use their own money for their learners.”

Teacher Informant 2, Kiamba Central SPED Center

“I take the initiative in accessing to the internet by downloading reading texts to be used in my reading class. So, there is an agreement between parents and school that parents should ensure that their children go to school everyday because teachers will their best to help them read. The reading remedial program was conducted. If only parents could send their children in school everyday, each learner will be a reader. For us teachers, we usually use our personal money to augment whatever is needed for our learners. Also, our parents here are very cooperative and supportive because they know where their money goes.”

Teacher Informant 3, Kiamba Central SPED Center

“Yes, we have achieved our programs because teachers have the initiative to connect with parents for support, ask for donation and encourage them to support school activities. But we cannot do that all the time because of some factors.”

Teacher Informant 2, Glan Central SPED Center

“Another is, the capacity of the learners where CI materials were crafted to all types of learners. Our learners here are very extreme, there are learners who are very fast and there learners who are also slow in terms of Math learning. Different levels are being used to different types of learners. Competencies are being reinforced with CI materials and activities. In the preparation of materials, we can just borrow it from the storage room.”

Teacher Informant 1, Malalag Central SPED Center

“But if a teacher is creative and resourceful I guess, limited resources is not a factor because teachers are naturally generous.”

Teacher Informant 2, Kiamba Central SPED Center

(iv) Teachers Attitude

Positive attitudes of teachers were highlighted as contributing factors in the CI implementation. Participants shared:

“When I allow my learners to have a class activities outside the room, you can really see learners really enjoy.”

Teacher Informant 1, Glan Central SPED Center

“Yes, CI implementation has helped the school in terms of improving the reading skills of the struggling readers. I appreciate the sacrifices of the teachers who have been sharing their time. CI project has contributed much in the school. In the implementation should be sustained because it has been a part of the achievement of the SBM Level 3. I hope CI team will continue to extend their effort and patience.”

Parent Informant, Malandag Central SPED Center

“I appreciate and I was happy that my teacher found time to fetch me at home, gave me chocolates and helped me to read. I hope those learners will really learn to read just like what happened to me. Teachers shared their time to help us read.”

Pupil Informant 1, Malandag Central SPED Center

On the other side, participants revealed that teachers attitude can also be a barrier in the CI implementation. They shared:

“Teacher factor is also a barrier. Their attitude in accepting new techniques is not so friendly. The CI project has been introduced to teachers many times like in SLAC sessions but many teachers have a negative perspective on its use.”

Teacher Informant 3, Glan Central SPED Center

“Some teacher’s attitude they really don’t like to try new things. I just really don’t what would happen because we have many teachers here who are very negative. I guess, slowly, teachers loss their interest. In our school, we have been doing the teaching demo in teaching reading by trained teachers. However, we have seasoned teachers who are quite impatient in catering struggling readers because these kids are restless, playful and have short attention span.”

Principal Informant, Kiamba Ccentral SPED Center

“They feel that CI project is not applicable. Maybe they lack knowledge and skills in using it. Teachers find it not so useful of has a less impact on them. Teachers acceptance of CI process is a need. I feel that some teachers do not fully accepted it yet. They pretended to sign in the commitment without a heart of doing it. Sometimes, those teachers who are newly hired choose what subject loads they like.”

Teacher Informant 1, Kiamba Central SPED Center

“What we need to improve is the attention and focus towards learners who have a hard time in Math especially teachers’ patience needs to be extended.”

Parent Informant, Malalag Central SPED Center

(v) Technical Support

Teacher participants frequently highlighted that technical support from school head is very vital in the delivery of basic education services and more specifically in the CI implementation. They shared:

“So, in this case, teachers are the ones spending their own money for their learner’s needs. So, support from the school principal is really needed.”

Teacher Informant 3, Glan Central SPED Center

“Another factor is the leadership of the school principal where she really has to mandate that all teachers should use REACTED as a strategy in teaching science. In this situation, the school principal should issue a memorandum to implement and use REACTED in teaching science.”

Teacher Informant 1, Glan Central SPED Center

“Times like that, the principal taps other teachers to handle the subject so that no single class is being left behind. In terms of security, learners cannot go out if it’s not time to go home and without guardians to fetch them. Those teachers who can be trusted are assigned in SPED classes maybe it’s the result of class observation. Some teachers especially those who are long in service usually give way to newly hired teachers to handle challenging sections.”

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions drawn from the analysed quantitative and qualitative information in response to the questions raised in this study. It also offers set of recommendations as suggested mechanism and initiatives contributory to continuous improvement implementation in support to the ISO journey of the Department of Education.

Conclusions

Level of Continuous Improvement Implementation of the Four Elementary Pilot Schools of Sarangani Division

Continuous improvement in the context of elementary schools in Sarangani Division vary in different level of implementation in different indicators..Glan Central SPED Center and Malandag Central SPED Center performed Satisfactory while Kiamba Central SPED Center and Malalag Central SPED Center performed Very Satisfactory in Academic Qualifications. In addition, in terms of teachers' adequacy, Glan Central SPED Center performed Satisfactory while Kiamba Central SPED Center, Malandag Central SPED Center and Malalag Central SPED Center performed Very Satisfactory . With regard to instructional process, three CI pilot schools performed Very Satisfactory except for Glan Central SPED Center which performed Satisfactory. Surprisingly, all the CI pilot schools performed Very Satisfactory on academic performance and administrative support for effective instruction.

Difference Among Four CI Pilot Schools in Terms of Continuous Improvement Implementation

The four CI pilot schools do not differ in the level of CI implementation in Academic Qualification, Teacher Adequacy and Academic Performance. Moreover the four schools differ significantly in Instructional Processes and Administrative Support for Effective Instruction.

Level of School Effectiveness among CI Pilot Schools

This study yields findings that all the four CI pilot schools performed Very Effective in Instructional Leadership. This implies that school principals do their job in instructional supervision and mentoring. Moreover, Malalag Central SPED Center performed Very Effective while Glan Central SPED Center, Kiamba Central SPED Center and Malalag Central SPED Center performed Effective in Human Resource Development. Consequently, all the four CI pilot schools performed Very Effective in partnership and school leadership.

Meaning of Continuous Improvement Implementation among Stakeholders

This study yields findings that the meaning of continuous improvement can be used as an avenue to sustain its implementation in the division of Sarangani. Continuous improvement has been viewed by stakeholders in different angles. First, CI is considered beneficial. Informant defined CI as a process that has been used to help learners improve their reading and numeracy skills where innovations are introduced and used. Further, continuous improvement contributed to school development where initiatives are implemented by schools to improve public education processes and outcomes. Moreover, CI is viewed by informants as fun where learning activities introduced inside the classroom are tailored fit within the learning level of every learner in which games are integrated in each lesson. Constructs displayed findings that CI is an interactive process where learners are given the opportunity to participate in groups with real hand learning experiences using technology or

through group activities. In addition, continuous improvement is viewed as partnership experience. It is a process where all stakeholders are provided with opportunity to extend their caring acts to help schools improve its systems

Sentiments of Stakeholders on Continuous Improvement Implementation

Sentiment analysis of this study uncovered that all the stakeholders have sentiments on continuous improvement implementation. Parents reveal that teachers attitudes—positive or negative—is crucial in the successful CI implementation. They also revealed that a critical incident in this study based on the narratives is the lack of understanding of teachers on the role of the school on child protection in the CI implementation. On the other hand, learners have also shouted out their voices. They unveiled that teacher's attitude can either be contributing or hindering factor towards CI implementation. Also, they shared that learning activities should be interactive, differentiated and fun. Teachers, as the main drivers of CI implementation have their own sentiments. They shared that provision of materials in all activities is an enabling factor. Moreover, teacher's initiative is one way of addressing a problem inside the classroom and technical support is necessary in the CI implementation. With respect to the views coming from the principals, they described teachers' attitude is a great factor towards learners' development. Equally important in the CI implementation is parents' support that is vital to sustain it. Also, support from school head is important to CI implementation. Moreover, stakeholders have their sentiments. They shared that Strategizing activities is vital to cope with the demand of time; Diagnosing a problem in relation to CI implementation can improve the process; and prioritizing activities is a good strategy to sustain CI implementation.

Implication to Theory

Research Recommendation

This research work needs a critical evaluation for future research frameworks. Research work like this is an opportunity to generate information to describe the phenomenon and participants of the study following the highest ethical standard as possible. This study is characterized by a number of strengths and limitations that will offer ideas on how to improve the methods of gathering, analysing and interpreting information in the conduct of future research endeavors.

Survey questionnaires and checklists and guides for the key informant interview and focus group discussions were reviewed and validated by pool of experts to ensure that questions raised are sensitive and are logically and factually sound to generate accurate results. One limitation of this study is that it only covered the CI elementary pilot schools with different CI projects. Future research endeavours may be conducted that would include the secondary schools that implemented continuous improvement.

Reforming Technology Livelihood Education Professionalism in Teaching Millennial Students of the University of Caloocan City, Congressional Campus

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Abstract

This descriptive study assessed the readiness of the Technology, Livelihood Education faculty in teaching millennial students of the University of Caloocan City, Congressional Campus. At present, 41% of today's generation are considered as millennial students. The third year College students as the respondents of the study able to assessed the teaching styles of their professors and come up with findings that; ICT based learning is more extensive used in the discussion because of the teacher's initiative to bring technology as a part of the learning process. In addition, teachers usually allow their students to used their gadgets during classroom discussions, more particularly in reporting which made learning convenient; Moreover, interactive learning has also been rated great extensive and is practiced inside the classroom because the major subjects require output and end-products made by the students as an evidence of teaching-learning process. Furthermore, the teachers let the students perform more and gave sufficient time to do tasks. The researchers recommend this to teachers to use variety of teaching strategies in order to address the different learning styles of the students.

Keywords: Millennials, ICT, interactive learning, strategies, learning styles

The Problem and Its Background

Studies revealed that there is no best strategy or method to teach students. There is only an appropriate method which teachers could utilize for specific type of student. This means that teachers have to understand the kind of students they have in the classroom. At present, 41% of today's generation are considered as millennial students. They are born from 1982 through 2000. They are considered the most diverse generation teachers have had to teach. According to United States Census Bureau Statistics (2008) "there are more than 80 million of them which is considered the largest cohort size in history." Millennial are said to be not passive learners which means they learn better when they are engaged in learning. They are also achievers and team oriented. More so, they interact with technology more effectively. But the most consistent characteristic of the said generation is that they are technically savvy. Dealing with millennial goes beyond the usual teaching and learning process where the teacher spoon-feeds students.

Technology in Education is widespread and its popularity is continually growing worldwide. They are a great source of information and learning. Apparently, educational

technology is considered one of the most important facility of the school. This is embodied in the Department of Education (DepEd) order No. 1 series of 2007. With this, teachers should be adeptly suited in using educational technology.

However, the Philippines in relation to the use of technology in the classroom still faces a lot of challenges which includes changes in the curriculum, limited IT resources and growth of changes. These become overwhelming for administrators and teachers to keep up particularly in many public schools and some locally funded institutions where funds and resources are insufficient. But despite these limitations, schools are expected to produce quality graduates and the teachers on the other hand are to find ways to adapt and respond to the demands of their profession. Hence, it is essential that school owners and administrators prepare and equip teachers for the challenging task ahead.

Therefore, this study seeks to look into the readiness and reforming of the faculty members particularly the BSE-TLE Department of the University of Caloocan City to teach Millennial students. This study emphasizes the institutional teachers to address the needs of the millennial students. Also, it aspires to gather information and to have suggestive means which can be helpful for the institution.

Theoretical Framework

This study was anchored on Bruner's (1966) Constructivist Theory. According to him, a theory of instruction should address four major aspects such as (1) the predisposition towards learning, (2) the ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner, (3) the most effective sequences in which to present material, and (4) the nature and pacing of rewards and punishments. The good methods for structuring knowledge should result in simplifying, generating new propositions, and increasing the manipulation of information.

This study also agrees with Bruner's theory that "learning occurs when learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information." The learners are the makers of meaning and knowledge. This means that in a constructivist learning, the learners create made new ideas and make meaning or concepts on their own which are based on their own understanding.

Statement of the Problem

This study assessed the readiness of the BSE-TLE faculty in teaching millennial students of the University of Caloocan City, Congressional Campus. Specifically, this study aims to answer the following questions:

1. What is the profile of the respondents in terms of
 - 1.1 gender,
 - 1.2 age, and
 - 1.3 civil status?

2. How do the respondents assess the readiness of the BSE-TLE faculty in terms of the following instructional strategies in teaching millennial students?
 - 2.1 ICT-based
 - 2.2 Cooperative
 - 2.3 Constructivist
 - 2.4 Inquiry based
 - 2.5 Interactive.
3. What problems are encountered by the faculty related to teaching their students as perceived by the respondents in terms of:
 - 3.1 Classroom setting; and
 - 3.2 Students' behavior towards learning?
4. How may the problems encountered by the faculty related to teaching their students as perceived by the respondents be addressed?

Scope and delimitation

The study assessed the readiness of the BSE-TLE faculty in teaching millennial students of the University of Caloocan City. This study is limited only to the assessment of students to their professors who are teaching the major subjects in the department during the second semester of academic year 2015-2016. This study is only limited to five (5) instructional strategies used by teacher in teaching millennial students namely; ICT-based, cooperative, constructivist, inquiry-based and interactive learning. The respondents of this study are the third year students who are currently enrolled in the said semester in the BSE-TLE Department of the University of Caloocan City.

Significance of the Study

The researchers assert that the following will benefit from the findings of the study.

Faculty. This study will assist the teachers to identify the appropriate techniques and methodologies including technology assisted instruction that are aligned with the learning styles of the students.

Students. This study will benefit the students to develop and increase their learning abilities without complexities.

Administrators. This study may serve as a basis for the formulation of future modification of educational policies, curriculum and strategies toward a more effective delivery of learning.

Future Researchers. This study can also serve as a basis for future related studies.

Definition of Terms

For the purpose of clarification, the important terms used in this study has been theoretically defined as follows:

Constructivist learning is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. The learners are the makers of meaning and knowledge.

Cooperative Learning is a successful teaching strategy in which small teams with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject.

Discovery learning provides opportunities for learners to explore and experiment, and use concrete "hands on" experiences to help students learn.

Generation X are those people who were born between the early 1960s and the 1980s.

ICT based learning is defined as a diverse set of technological tools and resources used to communicate and create, disseminate, store, and manage information.

Integrated Virtual Learning Environment (IVLE) is a courseware management system designed and develop to manage and support the teaching - learning over the internet.

Interactive Learning is a pedagogical approach that incorporates social networking and urban computing into course design and delivery. It has evolved out of the hyper-growth in the use of digital technology and virtual communication, particularly by students.

Inquiry-based learning starts by posing questions, problems or scenarios, rather than simply presenting established facts or portraying a smooth path to knowledge. The process is often assisted by a facilitator.

Method is an established, habitual, logical, or prescribed practice or systematic process of achieving certain ends with accuracy and efficiency.

Millennial is the generation of people born between the early 1980s and the early 2000s. The most commonly used birth range for this group is 1982 – 2000. They are also known as the "Generation Y."

Wait time is the amount of time that elapses between a tutor-initiated question and the next verbal behavior.

Statistical Treatment of Data

Upon the retrieval of the questionnaires, the responses were tallied and tabulated. The data were processed using the following statistical tools.

1. **Percentage.** This was used to describe and compare magnitude of numbers which determines the percentage of the respondent's demographic profile.

$$\% = \frac{f}{\text{Total}} \times 100$$

2. **Weighted Mean.** This was utilized to determine the measure of central tendency that reflect the respondents' perception on the readiness of the BSE-TLE faculty in teaching millennial students.

$$WM = \frac{\sum f(W)}{N}$$

Where:

WM = Weighted Mean

$\sum f(W)$ = Summation of the respondents of frequencies and weight

N = total number of respondents

The scale values of the mean computed which served as the basis for the qualitative interpretation to the results are as follows:

<u>Rating</u>	<u>Mean or WM</u>	<u>Verbal Interpretation</u>
5	4.21-5.00	Greatly Extensive (GE)
4	3.41-4.20	More Extensive (ME)
3	2.61-3.40	Moderately Extensive (MOE)
2	1.81-2.60	Low Extensive (LE)
1	1.00-1.80	Not extensive at all (NE)

3. **Ranking.** This was utilized for the data transformation in which the items or indicators were replaced by the rank when the data were sorted. Likewise, it is used to rank the degree of usage of the following teaching strategies practiced by the teacher.

Result and Discussion

No. 1. What is the demographic profile of the respondents?

Table 1

Demographic Profile of Respondents

Profile	F	%
GENDER		
Male	21	25
Female	62	75
Total	83	100
AGE		
22-above	4	5
20-21	35	42
18-19	44	53
Total	83	100
CIVIL STATUS		
Married	2	2
Single	81	98
Total	83	100

Table 1 presents the profile of respondents in terms of gender, age and civil status. There were 21 or 25% male student respondents and 62 or 75% female student respondents. In terms of age, there were 53% or 44 respondents ages 18-19, 42% or 35 with ages of 20-21, and 5% or 4 ages of 22 and above. In terms of civil status, there were 2% or respondents were married students and 98% or 81 single students.

2. How do the respondents assess the readiness of BSE-TLE faculty in terms of the following instructional strategies in teaching millennial students?

Table 2

ICT-Based Learning

Indicator	WM	VI	RANK
1.1. The teacher uses LCD projector in presenting the lesson to classroom discussion.	3.36	MOE	3
1.2 The teacher allows students to use tablets and smart phones during the class discussion for educational purposes.	2.78	MOE	4
1.3 The teacher uses presentations during discussion.	3.90	ME	2
1.4 The teacher allows students to surf the internet for homework or assignment.	4.27	GE	1
Over-all mean	3.58	ME	

Tables 2 to 6 present the assessment of the students on the readiness of the BSE-TLE faculty in teaching millennial students.

The assessment of the respondents on the extent of ICT-based learning is presented in table 2. A similar rating of moderately extensive were given by the students on items no. 1.1 and 1.2. This refer to the teacher uses LCD projector when presenting the lesson in classroom discussions and the teacher allowing students to use tablets and smartphones during the class discussion for educational purposes. Both items obtained a weighted mean of 3.36 and 2.78 respectively.

On the other hand, the students rated item no. 1.3 as more extensive with a weighted mean of 3.90. This refers to the teacher using presentations during class discussions. Also, they rated item, 1.4 great extensive with a weighted mean of 4.27. This refers to the teacher allowing the students to surf the internet for homework or assignments. Based on the table, the ICT-based learning has an over-all mean of 3.58 which is verbally interpreted as more extensive.

The table revealed that in terms of rank, the highest rank of 1 and 2 in the ICT-based learning was the allowing the students to surf the internet for homework or assignment and the use of presentations during class discussions. On the other hand, the lowest in rank refer to the teacher allowing students to use tablets and smart phones during class discussion for educational purposes.

Table 3

Cooperative Learning

Indicator	WM	VI	RANK
2.1 The teacher helps students develop a sense that they can "sink or swim" together.	4.00	ME	3
2.2 The teacher encourages discussion among group members.	4.08	ME	2
2.3 The teacher establishes an optional group size and includes individual assessment.	3.96	ME	5
2.4 The teacher provides initial ongoing instruction on effective group skills such as communication, decision making, conflict resolution, leadership and trust.	4.14	ME	1
2.5 The teacher establishes dedicated time for group reflection by providing structures such as specific questions, learning logs or sentence stems that focus on how well the learner is functioning and how to function even better.	3.99	ME	4
Over-all mean	4.01	ME	

This result backs up the study of DepEd (2009) where they encourage and support the implementation of the information and communication technology or ICT plans to improve the quality of education in the Philippines. In addition, the teachers in BSE-TLE are accessible to use of information technology and other innovative technologies inside the classroom.

Table 3 presents the assessment of respondents on cooperative learning.

It could be deduced from the data in Table 3 that the respondents gave the same rating of more extensive on all items with an obtained weighted mean of 4.0, 4.08, 3.96, 4.14 and 3.99 respectively. Table 3 revealed that in terms of rank in cooperative learning was the teacher providing initial ongoing instruction on effective group skills such as communication, decision making, conflict resolution, leadership and trust. On the other hand, the lowest in rank was the teacher establishing dedicated time for group reflection by providing structures such as specific questions, learning logs or sentence stems that focus on how well the learner is functioning and how to function even better and teacher establishes an optional group size and includes individual assessment.

The result in table 3 supports the research of Krauss and Sears (2008) which mentioned that students value activities that engage their interest through class/small group discussion, simulation games, and group projects in contrast to activities that isolate them as individual participants in learning.

Table 4

Constructivist Learning

Indicator	WM	VI	RANK
3.1 The teacher provides students with experiences that allow them to hypothesize, predict, manipulate objects, pose questions, research, investigate, inquire and invent.	4.22	GE	4
3.2 The teacher facilitates of learning in which students are encouraged to be responsible and autonomous.	4.35	GE	3
3.3 The teacher uses situations, environments, skills, content and task which are relevant, realistic and authentic and represent the natural complexities of the real world.	4.42	GE	2
3.4 The teacher provides the learners with the opportunity for apprenticeship learning in which there is an increasing complexity of task, skills, and knowledge acquisition.	4.05	ME	5
3.5 The teacher provides activities, opportunities and tools to encourage metacognition, self-analysis, regulation, reflection and awareness.	4.53	GE	1
Over-all mean	4.31	GE	

The assessment of the respondents on constructivist learning is presented in Table 4 above.

Looking at the data in table 4, a similar rating of greatly extensive were given by the respondents on all items under constructivist learning except for item no. 3.4 which refers to “the teacher provides the learners with the opportunity for apprenticeship learning in which there is an increasing complexity of task, skills, and knowledge acquisition.” An overall mean of 4.31 with a verbal interpretation of greatly extensive has been given by the respondents.

The table revealed that the highest rank in the constructivist learning was the teacher providing activities, opportunities and tools to encourage metacognition, self- analysis, regulation, reflection and awareness. On the other hand, the lowest rank was the teacher providing the learners with the opportunity for apprenticeship learning in which there is an increasing complexity of task, skills, and knowledge acquisition.

This study provisions the statement of Prensky (2009) which refer to today’s students know that learning means being able to apply it in real life. This means “when they learn to play a game, they can collaborate and compete with others around the globe. When they learn to download, text, and tweet, they can immediately participate in profound social revolutions, such as changing the music business and influencing government policies. As they learn to post their creations and ideas online, they become aware that even as young people they can truly influence and change the world.” (Presky, 2009)

Table 5

Inquiry-based learning

Indicator	WM	VI	RANK
4.1 The teacher intervenes to clear misconceptions and develops students misunderstanding.	3.99	ME	4
4.2 The teacher creates and asks questions that stimulate students’ interest.	4.99	GE	1
4.3 The teacher provides filed works, case studies and investigative projects.	2.53	LE	5
4.4 The teacher makes casual corrections and relationship when explaining interrelated topics.	4.10	ME	3
4.5 The teacher promotes students dialogues.	4.27	GE	2
Over-all mean	3.97	ME	

The assessment of the respondents on inquiry based learning is presented in Table 5.

Looking at the data in Table 5, a similar rating of greatly extensive were given by the students on item no. 4.2 which refers to “the teacher creates and asks questions that stimulate students’ interest” and item no. 4.5 which refers to “the teacher promotes students’ dialogues.” The stated items have a weighted mean of 4.99 and 4.27 respectively. Also, a similar rating of more extensive were given by the students on item no. 4.1 which refers to “the teacher intervenes to clear misconceptions and develops students misunderstanding” and items no. 4.4 which refers to the “the teacher makes casual corrections and relationship when explaining interrelated topics” with a weighted mean of 3.99 and 4.10 respectively. Inquiry based learning has an overall mean of 4.32 which is verbally interpreted as greatly extensive.

Consequently, the highest rank on the inquiry based learning as assessed by the students was “the teachers creates and asks questions that stimulate students’ interest.” On the other hand, the lowest rank was the “teacher provides field works, case studies and investigate projects.” This implies that the teacher in terms of inquiry based learning as a teaching strategy utilizes more of the questions and answers type of strategy in the class than making students wrote on a study or investigate a project.

This supports the statement of Windham (2005) that learners ask for the opportunity to explore and find solutions and answers for themselves.

Table 6

Interactive Learning

Indicator	WM	VI	RANK
5.1 The teacher asks specific, non- intimidating feedback questions and HOTS questions.	4.37	GE	3
5.2 The teacher makes the focus of interaction clear.	4.58	GE	1
5.3 The teacher creates the climate favorable for genuine interaction.	3.93	ME	5
5.4 The teacher does less talk so students can talk more and participate.	4.41	GE	2
5.5 The teacher gives sufficient “wait time” for students to think and organize their response.	4.05	ME	4
Over-all mean	4.32	GE	

The assessment of respondents on Interactive learning is presented in Table 6.

As presented in the data in Table 6, a similar rating of greatly extensive was given by the students on item no. 5.1 which refers to “the teacher asks specific, non-intimidating feedback questions and HOTS questions”, item no. 5.2 which refers to “the teacher makes the focus of interaction clear” and item no. 5.4 “the teacher does less talk so students can talk

more and participate.” All three items have a weighted mean of 4.37, 4.58 and 4.41 respectively. A rating of more extensive was given by the students on item no. 5.3 which refers to “the teacher creates the climate favorable for genuine interaction” and item 5.5 which refers to “the teacher gives sufficient wait time for students to think and organize their response.” Both items have a weighted mean of 3.93 and 4.05 respectively. For Interactive learning, an overall mean of 4.32 which is verbally interpreted as greatly extensive is shown in the table.

Table 6 revealed that the highest rank in interactive learning refers to “the teacher asks specific, non-intimidating feedback questions and HOTS questions.” On the other hand, the lowest in rank refers to “the teacher creates the climate favorable for genuine interaction.”

This result supports the study of Wilms, Friesen, and Milton (2009). They stated that “students want to interact with people both within and beyond the classroom and school environment. Respectful relationships and interaction – both virtual and personal – are shown to improve student engagement.” This means that students today are intensely social in nature and are interactive learners.

Table 7

Problems Encountered in Teaching Millennial Students

As to classroom setting:	WM	VI	RANK
1. modern media in the classroom are not available	4.2	ME	1
2. small classroom size	3.46	ME	2
3. big class size	2.07	LE	5
4. lack of readily available materials	2.65	MOE	4
5. unfavorable learning environment	3.06	MOE	3
Average Weighted Mean	3.09	MOE	
As to students' behavior:	WM	VI	RANK
1. too dependent on technology (tech savvy)	4.76	GE	1
2. too lazy to finish given tasks	4.57	GE	2
3. have short attention span	3.98	ME	4
4. multitasking which leads to poor output	3.46	ME	7
5. difficulty understanding instructions	3.21	MOE	9
6. intellectually naïve (easily convinced to believe information read or heard)	3.22	MOE	8
7. ignorant to allotted time or date for submission or completion of requirements	3.78	ME	6
8. withdrawal from groups of peers or classmates	2.56	MOE	10
9. little tolerance/ patience for delays	3.92	ME	5
10. dependent on peers or classmates	4.36	GE	3
Average Weighted Mean	3.78	ME	

Table 7 presents the weighted mean and the corresponding interpretations as to the problems encountered by the respondents in teaching their students.

In terms of classroom setting, Rank 1 with a WM of 4.2 talks about challenges in modern media in the classroom are not available in addition to the problem are small sizes of classroom which is Rank 2 among the problems faced by teachers as perceived by the respondents with a WM of 3.4. Rank 3 which contains concerns on unfavorable learning environment expresses issues on the manner a conducive educational atmosphere is being maintained in the institution. The data imply that professionalism, though a predominant innate process is also being affected by outside factors such as physical facilities where teachers do their job.

In terms of students' behavior, majority of the problems emanate from the learners' apparent disinterest in studying manifested by their lazy and laid back demeanor in accomplishing their school tasks which can be attributed to over-dependence in technology and their peers. Rank 1 with a WM of 4.76 shows that being tech savvy spells backward results for the students despite the fact that it offers convenience in searching information which has been once considered as a gargantuan and tedious task. Rank 2 with a WM of 4.57 and Rank 3 with a WM of 4.36 both reveal that students lack innate motivation to pursue things independently and instead rely on outside factors to help them finish their assigned requirements.

Table 8

As to Classroom Setting:	WM	VI	RANK
1. the teacher bring students outside the classroom for a more authentic learning experience.	3.43	ME	4
2. the teacher equip oneself with teaching materials such as TV, projector, laptop, lapel, etc.	4.76	GE	1
3. the teacher utilize collaborative learning, group, team and/or peer to peer discussion	3.78	ME	3
4. the teacher develop interactive instructional materials	4.21	GE	2
5. the teacher seek help from the administrators for the development, provision, and innovation of instructional materials	3.21	MOE	5
Average Weighted Mean	3.88	ME	
As to how Teachers' Strategies solve Students' Behavior as perceived by the respondents:	WM	VD	RANK
1. the teacher establish rules in using technology during class hours (intended for educational purposes only)	3.67	ME	7
2. the teacher engage with/through technology where appropriate	3.87	ME	6

3. the teacher set concrete examples for clear understanding	4.11	ME	3
4. the teacher ask for clarifications by any means	3.98	ME	4
5. the teacher create a safe, welcoming, inclusive classroom environment	3.11	MOE	9
6. the teacher establish rapport	4.34	GE	1
7. the teacher uphold good relationship between and among peers or classmates or students through collaborative learning techniques	3.45	ME	8
8. the teacher incorporate reflection and metacognition through journaling and creative arts	3.93	ME	5
9. the teacher conduct mini lectures of at least 15 to 20 minutes; followed by authentic assessment, or collaborative, or interactive learning activities	4.23	GE	2
10. the teacher's rules on multitasking must be clarified	3.03	MOE	10
Average Weighted Mean	3.77	ME	

Table 8 presents the weighted mean and the corresponding interpretations as to the ways respondents address their difficulties.

In terms of classroom setting, respondents put much emphasis on being equipped with the modern tools in learning to get by with their interest. Rank 1 with a WM of 4.76 dictates that 21st learners are not anymore contented with the traditional ways of teaching. Likewise, Rank 2 with a WM of 4.21 and Rank 3 with WM of 3.73 talks about subscribing to more interactive and innovative teaching methodologies through peer channels and technology-assisted techniques.

In terms of how teacher's strategies to solve students' behavior as perceived by the respondents, building rapport comes first with a WM of 4.34 followed by conducting mini-lectures followed by an authentic and collective assessment. Rank 3 with a WM of 4.11 deals with setting concrete examples to induce clear understanding. The data imply that learning activities must capitalize more on interaction rather than sitting discussion. Students' innate curiosity must be put to good use to enable them to create meaning and eventual learning on their own under a supportive and friendly approach by the teacher. Modeling is also important in this process as learners tend to emulate their mentors later on life.

Summary of Findings

1. Most of the students are single females and are between 18-19 years of age.
2. Respondents rated ICT-based learning as more extensive practiced teaching strategy by their teachers during classroom discussion.

Students rated cooperative learning as more extensive used teaching strategy by the teachers. However, the teachers' practice which establishes dedicated time for group reflection gained the least weighted mean among all mentioned practices under cooperative learning.

The respondents rated the constructivist and interactive learning as greatly extensive utilized by the BSE-TLE faculty in teaching. On the other hand, inquiry –based learning was rated by the respondents as more extensive used by the teacher.

Above all mentioned indicators in the teaching strategy, item No. 4.3 where the teacher provides field works, case studies and investigative project was only rated as low extensive by the respondents.

3. On the problems encountered by the respondents related to teaching their students
 - 3.1 Along classroom setting, the first three ranks are:
 - a. “modern media in the classroom are not available with WM of 4.2 or ME”
 - b. “small classroom size” with WM of 3.46 or ME
 - c. “unfavorable learning environment” with a WM of 3.06 or MOE
 - 3.2 Along the area of students' behavior, the first three ranks are:
 - a. “too dependent on technology (tech savvy) with WM of 4.76 or GE
 - b. “too lazy to finish tasks” with WM of 4.57 or GE
 - c. “dependent on peers and classmates” with WM of 4.36 or GE
4. On the ways teacher's address difficulties
 - 4.1 Along classroom setting, the first three ranks are:
 - a. “the teacher equips with teaching materials such as TV, projector, laptop, lapel, etc.” with WM of 4.76 or GE
 - b. “the teacher develops interactive instructional materials” with WM of 4.21 or GE
 - c. “the teacher utilizes collaborative learning, group, team and/or peer to peer discussion with WM of 3.73 or ME
 - 4.2 Along the area of how the teacher's elucidate the students' behavior, the first three ranks are:
 - a. “the teacher establish rapport” with WM of 4.76 or GE
 - b. “the teacher conducts mini lectures of at least 15 to 20 minutes; followed by authentic assessment, or collaborative, or interactive learning activities with WM of 4.23 or GE
 - c. “the teacher set concrete examples for clear understanding” with WM of 4.11 or GE

Conclusions

1. Most students in the BSE-TLE department are female. This means that there is a need to encourage more males to enroll in the department.
2. The ICT based learning is more extensive used in the discussion because of the teacher's initiative to bring technology as a part of the learning process. In addition,

teachers usually allow their students to use cellphones, laptops and tablets during classroom discussions, more particularly in reporting which made learning convenient.

Cooperative learning is practiced by the teacher during the teaching-learning process. This strategy was implied in the classroom discussion. However, teacher needs more time to establish group reflection among the students to have feedback for the lesson.

Constructivist learning has been rated great extensive by most teachers. HOTS are given importance in the classroom discussion. Moreover, the inquiry based has more extensive utilized by the teacher because it allows the students to learn from their own especially in their major subjects.

Interactive learning has also been rated great extensive and is practiced inside the classroom because the major subjects require output and end-products made by the students as an evidence of learning. In addition, the teachers let the students perform more and gave sufficient time to do tasks.

3. There are problems encountered by teachers especially in the physical state of their classrooms and students' behavior. However, the teacher mitigates these challenges with whatever resource and mean available to him/her.
4. Developing an educational environment where students can have fun while they learn is of prime importance to the contemporary teachers. Technical and professional skills can be put to the optimum if a harmonious relationship between the stakeholders is established.

Recommendations

In view of the above, the researchers recommend the following:

1. To encourage or promote a technology-savvy environment in the teaching-learning process by allowing the use of cellphones, tablets or computers/laptops for every student for educational purposes only.
2. The students to use the technology wise to enhance their capability and ability.
3. Develop faculty programs which provide a variety of training opportunities that are premised on the following:
 - 3.1 training benefits to the institution as a whole
 - 3.2 training develops and empowers the individual
 - 3.3 training focuses on the needs of faculty
 - 3.4 The TLE Department must seek the assistance of the administration and local government to provide more facilities for access to technology to promote higher education quality in the institution.

4. The future researchers should conduct studies on the different learning styles of BSE- TLE majors.

BIBLIOGRAPHY

A. Books

- Corpuz, B. (2014). *Principles of Teaching 2*. Diliman, Quezon City: Lorimar Publishing Inc.
- Prensky, M. (2012). *From Digital Natives to Digital Wisdom*, New York, United States of America: A SAGE Company.
- Strauss, W., & Howe, N. (2000). *Millennials Rising: The Next Great Generation*. New York: Vintage Books.

B. Journals and Monographs

- Best, J. & Kahn, J. (2007). *Research in Education*, New Delhi, Prentice Hall of India Private. Retrieved from http://ijtbm.com/images/short_pdf/Apr_2012_NEERU%20SALARIA%202.pdf
- Bruner, J. et al. (1947). Value and need as organizing factors in perception. *Journal of Abnormal and Social Psychology*, 42, 33-44. Retrieved from <http://psychclassics.yorku.ca/Bruner/Value/>
- Clause, C. (2012). *Millennial Generation: Definition & Characteristics*. Retrieved from <http://study.com/academy/lesson/millennial-generation-definition-characteristics-quiz.html>
- Czerniewicz, L. (2009). Students make a plan: understanding student agency in constraining conditions. *ALT-J, The Association for Learning Technology Journal*, pp. 75-88.
- DeBard, R. (2004). Millennials coming to college. In M. D. Coomes & R. DeBard (Eds.), *Serving the millennial generation* (pp. 33-45). New Directions for Student Services, No. 106. San Francisco: Jossey-Bass. doi: 10.1002/ss.123
- Department of Education Order no. 1 (2007). *Strengthening the Information Communication Technology (ICT) Governance of the Department of Education*. Retrieved from <http://www.deped.gov.ph/orders/do-1-s-2007>
- Dewey, J. (1938). *How We Think: A restatement of the relation of reflective thinking to the educative process*. Boston: D.C. Heath.
- Halse, M. (2009). Investigating popular Internet applications as supporting e-learning technologies for teaching and learning with Generation Y. *International Journal of Education and Development using ICT*, 5(5). Retrieved from <http://ijedict.dec.uwi.edu/viewissue.php?id=23>

- Harris, L. (2008). A Phenomenographic Investigation of Teacher Conceptions of Student Engagement in Learning. *The Australian Educational Researcher*, 5(1), 57-79.
- Klass, T. & Lindeberger, (2010). J.Millennial Vs. Boomers: Habits and Characteristics of Millennial in the Workplace. Retrieved from <https://business.linkedin.com/talent-solutions/blog/2013/12/8-millennials-traits-you-should-know-about-before-you-hire-them>
- Jackson, M. (2009). The Role of Head of Department In Managing Performance in UK Universities. Retrieved from http://ijtbm.com/images/short_pdf/Apr_2012_NEERU%20SALARIA%202.pdf
- Johnson D. W., & Johnson, R. (1989). Cooperation and competition: Theory and research. Edina, MN: interaction Book Company.
- Kraus, S., & Sears, S. (2008). Teaching for the Millennial Generation: Student and Teacher Perceptions of Community Building and Individual Pedagogical Techniques.(pp. 187-210) New York: NY Springer
- Pelgrum, W. (2009). ICT in Education around the world: Trends, problems and prospects. International Institute for Educational Planning, accessed December 31, 2012. Retrieved from International Journal of Education and Development using Information and Communication Technology (IJEDICT), 2013, Vol. 9, Issue 1, pp.112-125
- Pfaff, E. & Huddleston, O. (2003). Does it matter if I hate teamwork? What impacts student attitudes toward teamwork. *Journal of Marketing Education* 25:37–45.
- Rovai, A. & Childress, M. (2003). Explaining and predicting resistance to computer anxiety reduction among teacher education students. *Journal of Research on Technology in Education*, 35(2), pp. 226-235
- Roberts, D. et al. (2010). Twelve Tips For Facilitating Millennials' Learning.
- Strauss, W., Howe, N. (1991). Generations: The History of American's Future, 1584-2069. Retrieved from <https://atl.wsu.edu/teaching-resources/teaching-millennial-students/>
- Taylor, L. & Parsons, J. (2011). Improving Student Engagement. *Current Issues in Education*, 14(1). Retrieved from <http://cie.asu.edu/>
- United States Census Bureau (2011). Families and Living Arrangements, Table SHP-1. Parents and Children in Stay-At-Home Parent Family Groups. Retrieved from <https://www.uschamberfoundation.org/reports/millennial-generation-research-review>
- Windham, C. (2005). The Student's Perspective: Educating the Net generation. Boulder, CO: EDUCAUSE. Retrieved December 2010, from <http://www.educause.edu/educatingthenetgen>

Willms, J. (2003). Student Engagement at School: A Sense of Belonging and Participation. Results from PISA 2000. Paris: Organization for Economic Co-operation and Development (OECD). Accessed October 2010 from <http://www.unb.ca/crisp/pdf/0306.pdf>

Willms, J., Friesen, S. & Milton, P.(2009). What did you do in school today? Transforming classrooms through social, academic and intellectual engagement. (First National Report) Toronto: Canadian Education Association

C. Unpublished Theses and Dissertations

Benfer, E. (2013). Educating the Invincibles: Strategies for Teaching the Millennial Generation in Law School. Chicago, United States of America: Loyola University

Hooegeveen, M. (2005). The Viability of Multimedia Retrieval Systems for Marketing and Sales. Doctoral dissertation. Leidschendam, the Netherlands: PTT Research.

D. Electronic Sources

Kowalczyk, D. (2015) Descriptive Research Design: Definition, Examples & Types. Retrieved from <http://study.com/academy/lesson/descriptive-research-design-definition-examples-types.html>

Main, D. (2013). Who Are the Millennials?. Retrieved from <http://www.livescience.com/38061-millennials-generation>

McRae, N. (2009). How should the effectiveness of problem-based learning in occupational therapy education be examined?. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10500864>

Millennial Generation: Definition & Characteristics. Retrieved from <http://study.com/academy/lesson/millennial-generation-definition-characteristics-quiz.html>

Millennials (Millennial generation) Retrieved from <http://whatis.techtarget.com/definition/millennials-millennial-generation>

Millennial Vs. Boomers: Habits and Characteristics (2015, August 21) – 5:00 AM Retrieved from

<http://parade.com/417128/parade/millennial-vs-boomers-habits-and-characteristics/>

Purcell, K. et al. (2012). Part V: Teachers' Concerns About Broader Impacts of Digital Technologies on Their Students retrieved from <http://www.pewinternet.org/2012/11/01/part-v-teachers-concerns-about-broader-impacts-of-digital-technologies-on-their-students/>

Silomon, M.(2014). These 80 Million Consumers Share DEC 29, 2014 @ 11:18PM.

Retrieved from

[http://www.forbes.com/sites/micahsolomon/2014/12/29/ 5-traits-that-define-the-80-million-millennial- customers-](http://www.forbes.com/sites/micahsolomon/2014/12/29/5-traits-that-define-the-80-million-millennial-customers-).

Stanford School of Medicine (2015). Stanford Medicine Interactive Learning Initiatives.

Retrieved from <http://med.stanford.edu/smili/interactive-learning/>

Starlink. (2004). Educating the NetGen: Strategies that work. Participant Packet.

Retrieved from <http://www.starlinktraining.org/packets2004/packet129.pdf>

Williams, A. (2015). Move Over, Millennials, Here Comes Generation Z. Retrieved from

http://www.nytimes.com/2015/09/20/fashion/move-over-millennials-here-comes-generation-z.html?_r=0