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Learners With Disabilities Can Contribute to Waste Management

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Encouraging the community to shift into a more environmentally friendly practice would entail a consideration of several factors, more so if it includes the participation of individuals with disabilities. The result of the study highlights several actions needed to maximize the potential of the program: 1) the continuous training of learners with disabilities to build capacity and capability; and continuous funding for such; 2) the continuous improvement of product quality to meet specific market needs; and 3) the development of programs to increase the community's awareness, understanding, and appreciation of the benefits of recycling.

One of the global issues that is slowly endangering all living forms is the accumulation of waste. It was estimated that the Philippines generated 13.1 million tons of waste in 1999, or 35 tons of waste a day (National Solid Waste Management Commission, 2011). Fifty percent of these were organic wastes, 42 to 49% are recyclable wastes, and the remaining 2% to 8% were inorganic and special wastes (National Solid Waste Management Commission, 2011). Paper alone contributes to 19% of solid waste produced at the municipal level as only 60% of the 100 tons of waste paper being produced every year was recycled (Parayno & Busmente, n.d.). With these problems in mind, the Ecological Solid Waste Management Act of 2000 (2001) was given the nod on January 26, 2001. It provided a framework for solid waste management at the local government level. Specifically,

the National Solid Waste Management Framework presents waste management options from the least to the most preferred treatment, the lead government agencies involved, and their specific responsibilities (Otoma & Castillo, 2013).

This study used a three-pronged approach to waste management. One, it utilized used papers and repurposed them as paper bags. Second, it trained individuals with disabilities in the process of recycling. Third, it encouraged the community (specifically the business establishments) to use these bags. Six indigent learners with disabilities were trained by a team of special education teachers and an occupational therapist in repurposing used papers to paper bags. Twenty-five business establishments were asked to participate in the needs assessment, try out the paper bags, and evaluate its potential as a substitute for plastic bags.

A total of 30 training sessions were provided to teach the participants how to fold the papers into bags and apply the right amount of paste. Individual analysis of the participants' daily performance shows that five of six participants showed improvement in quality of output. They needed less assistance, as well. Three were able to reach the point where they were totally independent in producing fair quality paper bags. Aside from teaching skills, the training proved to have therapeutic benefits as certain visual motor skills improved in the process. Five out of six participants all had improvements in their Visual Motor Index. Four showed improvements in their Visual Figure Ground and Visual Closure, and three improved their visual discrimination and visual sequential memory.

Further improvement in skills and output can be attained if longer training sessions and repetition are given. This will only be possible if continuous funding is provided. It will also enable the program to train more indigent individuals with disabilities. It is estimated that over a billion or 15% of the total population has a particular kind of disability ranging from physical, sensory, or mental challenges (World Health Organization, 2019). Despite the efforts carried out by the government to provide full and productive employment to Persons with Disabilities (PWDs), only less than 10% of the 100,000 registered and capable PWDs are employed. More than half of them are involved in income-generating jobs/businesses, most of which are under informal arrangements. The rest are dependent on the financial support from family members/friends, benefits from the government, or even from begging (Schelzig, 2005).

PWDs will continue to encounter difficulty getting and maintaining competitive employment because of school failure and social rejection. Some of them are even trapped in low paying employment (Levine, Marder, & Wagner, 2004). Customized employment that takes into consideration the employees' strengths, needs, and interests can address this. It may include employment developed through job carving, self-employment, entrepreneurial initiatives, or other job development or restructuring strategies to fit the needs of PWDs (Office of Disability Employment Policy, 2001). By creating a special place for them where they can work without their conditions serving as a hindrance, these individuals may be given a chance to develop marketable skills and be contributing members of the community.

For the participating business establishments, the study found that 76% were no longer using plastic bags because it is prohibited by the local government. 8% signified knowledge about the ordinance; while 12% were doing it for environmental reasons "to help the environment and reduce waste." 63% said they were doing so to abide by the law.

This suggests a need to further educate the community. Over and above mere compliance, its members should understand why the shift to a more environmentally friendly practice could benefit everyone in the long run. The need to care for the environment could hopefully be well assimilated and be made part of the Filipino culture, where each and every constituent would want to keep on trying to find ways to resolve sustainability issues.

There seems to be hope in encouraging genuine participation. From the perspective of planned behavior, a change in behavior can be explained by the intention to act or perform the behavior. This is influenced by three factors, namely: attitude towards the behavior, subjective norm, and perceived behavioral control. Attitude towards the behavior reflects the extent to which these business establishments evaluate the act of shifting to paper bags. It is a matter of how favorable or unfavorable it would be for them. Subjective norm, on the other hand, reflects the amount of pressure there is to act or not to act. Lastly, perceived behavioral control is the evaluation of how easy or difficult it is to perform the behavior (Ajzen, 1991; Bautista, 2019).

A study found that Filipino employees generally have positive attitudes towards applicants with disabilities and this can be connected to the added value it brings to the company or the business (Gatchalian et al., 2014). The idea of helping individuals with disabilities can influence their attitude towards using paper bags and may create pressure for them to conform. These two factors may further increase the chance of influencing their behavior.

Results indicate that 70% of the respondents are willing to buy the paper bag because they wanted to help PWDs earn a living. Mere charity towards PWDs was not the aim of the training program as it endeavored to build work capacity; but charitable attitude translated to the interest and intent to buy their products could be a starting point in making them part of the able members of the workforce.

However, relying on the added value of having PWDs as beneficiaries of their actions may not apply to everyone or for long. People's perceived behavioral control is also influenced by both past experiences and anticipated difficulties (Ajzen, 1991; Bautista, 2019). Consumers must feel that it will be easy and convenient for them to make the shift. Of the 22% that are still using plastic bags, three pointed out that it is more durable than paper bags, and that it holds heavy and wet merchandise better. It also protects the merchandise from the elements, especially when it is raining. Further, they look better and are more convenient to carry. These were consistent with the results of product evaluation. 22% of the participants still need to check the quality and price of the paper nags before they can be convinced to buy the items. While the paper bags did not break upon and after use, the participants still want to test for durability and reusability.

The paper bag was priced at 50 centavos per piece. The price was considered prohibitive by some participants given that plastic bags are relatively cheaper. Low production needing lower volume and number of materials tend to raise production cost. Bigger production and better management via better price negotiations on materials could make for a more competitive pricing.

The study gave a glimpse of how recycling can be an avenue to solve two glaring societal issues: waste management and employment of Filipino PWDs. The results could serve as springboard for more researches on the viability of recycling as a solution, and the possibility and future of training and employing PWDs in it.

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