

Scientific Perspective of Meranao Students' Superstitious Beliefs in Food Preparation and Preservation

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Abstract

The acquired knowledge of young tribe men and women is one of the local issues. How Meranao young men and women acquired alternative scientific conceptions towards food preservation and food preparation are an inevitable concern of some academicians. The goal of this research is: 1) to determine what are the conceptions of students towards food preservation and food preparation gathered through their Superstitious beliefs or traditional beliefs and; 2) how these misconceptions derived from their superstitious beliefs or traditional beliefs be remedied through classroom intervention. This research used qualitative approach to collect, classify, analyse and interpret the science-related superstitious beliefs among Meranao high school students of MSU External units namely, MSU-Marantao Community High School, MSU-Saguiaran Community High School and MSU-Lanao National College of Arts and Trades. A total of 146 superstitious beliefs were with scientific basis but only 11 concepts about food preservation and 10 concepts about food preparations were identified having scientific basis. Most of the prior knowledge of the respondents on the collected superstitious beliefs had been handed down by great grandparents from generation to generation. The sources of superstitious beliefs are the grandparents (34%) parent (father or mother) (26%), Friends and classmates and relatives (21%), neighbours (17%) and local radio and madrasah (2%) Implementing the designed intervention to redirect students' misconception was done in this study. Results indicated that misconception was redirected as evidenced by written journals and triangulated by their administered Likert-scaled questionnaire suggesting that the intervention has redirected the students' conception. It is then recommended that all superstitious belief that does not have scientific proof should be disregarded no matter relevant it might to the peoples' lives. The superstitious beliefs that are not science related should be substantiated carefully and methodically and apply it for the development of scientific investigations.

Keywords: Superstitious beliefs, Food Preparation and Food Preservation, Scientific perspectives of meranao High School students

Introduction

Knowledge acquisition is one of local issues. How Meranao young men and women acquired alternative scientific conceptions towards food preservation and food preparation is an inevitable concern among academicians. The goal of this research is: 1) to determine what are the conceptions of students towards food preservation and food preparation gathered through

their Superstitious beliefs and; 2) how these misconceptions derived from their superstitious beliefs be remedied through classroom intervention. Alternative conception believed to stem from Superstitious beliefs.

Many people believe that superstitious beliefs originated during the earliest days of humanity. Human beings attempted to create an understandable world of powers that could be influenced by actions. The earliest superstitions were created as a way to deal with ignorance and fear of the unknown. Superstitions are thus, a way of attempting to regain control over events, particularly when one feels helpless. They are born from casual coincidences and learned behaviors. The origin of certain superstitions may be centuries old, having been passed down from generation to generation through observational learning process. Some seem more widespread from nation to nation and some superstitions are cultures specific. It is more common among certain groups of people and varies from culture to culture. Some superstitions are considered harmless and may even be helpful in encouraging people to achieve their goals, attributing result to an unrelated cause. In fact, some people depend on luck through superstitious beliefs.

Studies on superstitious belief were conducted in Botswana (Emereole, H., et al. 2001) ; South Pacific Country (Waldrup and Taylor, 1999) ; Utah (Hand and Tally , 1984) ; North Carolina (Hand, 1964) ; Spain (Meyerson, 1990, Castro, 1995 and Franklin, 2005); Nigeria (Baker and Taylor, 1995); Pakistan (Ishaque, Saleem and Qidwar, 2009), in Muslim countries (Zwemer, 2000); and in India (Dickens, 1996) .

In the Philippines, several studies related to superstitious beliefs were also conducted by different researchers. Among others, Rosa (1949) made a preliminary study on possibilities of weakening or undermining common superstitious beliefs among Filipinos through the teaching of general science in the public schools. Likewise, Arada (1959) studied the relationship of intelligence-test scores, educational attainment, and sex to superstitious beliefs. Meanwhile, Amor (1968) had done a thesis on magical and superstitious beliefs and practices of the Subanons in Zamboanga. Zabala (1975) also conducted a thesis on prevalent superstitious beliefs among college students. Moreover, Flores (1968) and Catacutan (1992) also surveyed superstitious beliefs and practices concerning pregnancy and childbirth while Fernandez (1980) worked on superstitions about health beliefs and practices of the people in selected barangays of Gingoog City. Others work on superstitious beliefs were related to business and agriculture such as those of Cabuntucan (1980); Tabaza (1977); Villanueva (1981). Lastly, Kenoh (1977) worked on superstitious beliefs of the Muslims of Sulu and their implication on health education.

Based on literature on hand, no studies on Meranao superstitious beliefs which can be explained scientifically have been published in the Philippines. It is along this line of contention that the researcher became interested in studying. Moreover superstitious beliefs on Meranao culture, particularly those focused on superstitious beliefs of Meranao high school students which can be explained scientifically and superstitious beliefs which may not agree with scientifically explained phenomena. Superstitious beliefs which do not have scientific basis may be sources of misconceptions and remediation strategies may be conducted in order for them to form their alternative conception

It is envisioned that this study will in one way or the other help the indigenous cultures improve and appreciate science education and become more scientifically and technologically literate. Moreover, it may develop and promote awareness and concern among Meranao learners about current and new scientific and technological issues in order to become advance and civilized minority tribe.

Conceptual Frameworks

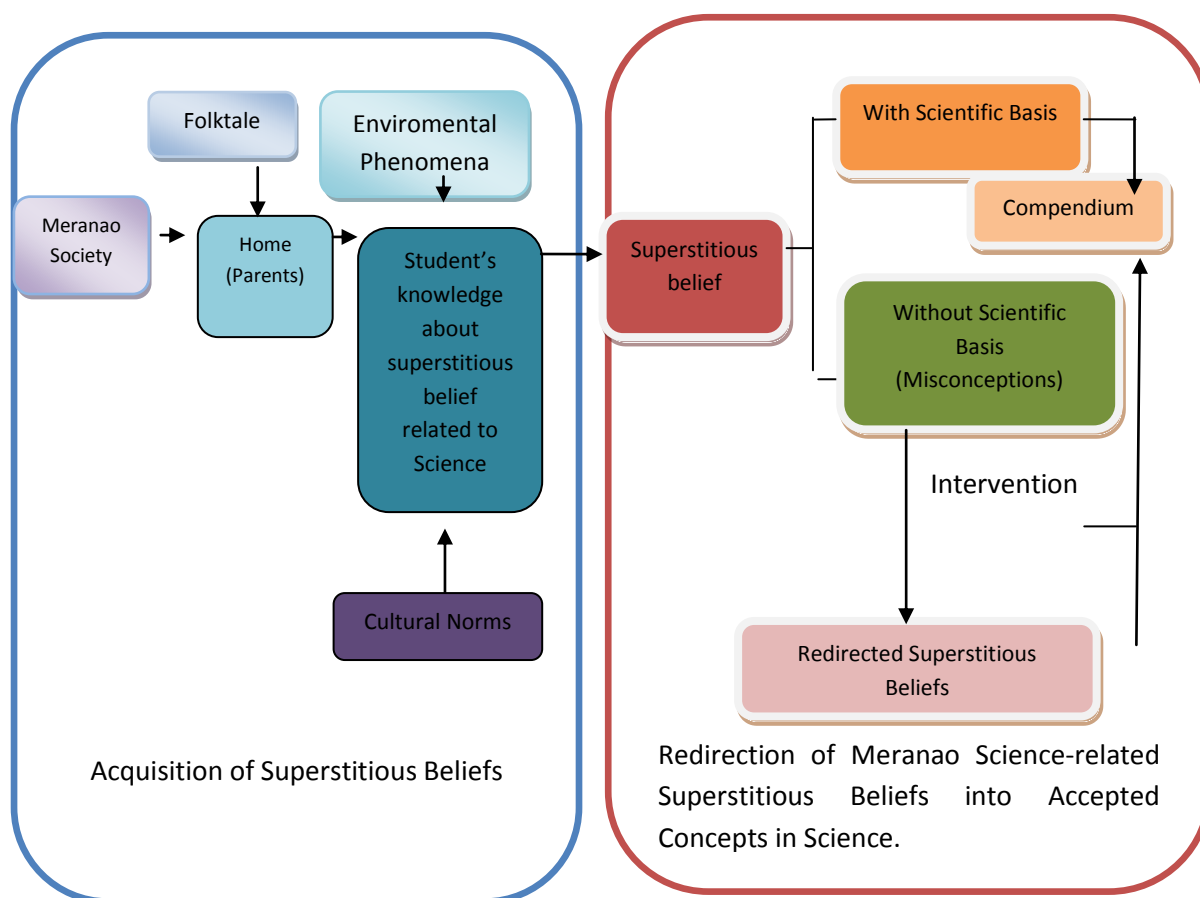


Figure 1. The Conceptual Framework of the study

Methods

Participants

The study was conducted in three selected high schools under the supervision of the Mindanao State University. These are: The MSU-Saguianan Community High School (MSU – SCHS), MSU-Marantao Community High School (MSU – MCHS) and MSU-Lanao National College of Arts and Trade - High School Department (LNCAT- HS). These schools are predominantly dominated by meranao tribes. The respondents to this study were composed of 417 students coming from randomly chosen intact sections from 1st year to 4th year in the three high schools selected as research sites during the school year 2013 – 2014. The respondents to this study were composed of 417 students coming from randomly chosen intact sections from 1st year to 4th year in the three high schools selected as research sites during the school year 2013 – 2014.

Design

The study used qualitative method in analyzing and interpreting the obtained data. The study involved an investigative process where the researcher makes sense of a social phenomenon by collecting, comparing, classifying, analyzing and interpreting the object of the study.

Materials

The researcher used several sets of instruments used to gather accurately individual beliefs of the respondents. These are: Open-ended Questionnaire, Clinical Structured Interview Schedule, Focus Group Discussion Questionnaire and Field Observation Notes and Likert Scaled on Current Views on the Redirected Superstitious Beliefs, Student Journals and the Lesson Plans. The generated data from these instruments were triangulated to establish validity of the result of the study.

Procedure

A total of 146 superstitious beliefs were collected from the research participants enrolled at the MSU-Saguianan Community High School, MSU- Marantao Community High School and the Lanao National College of Arts and Trades, High School Department during the school year 2013 – 2014. The collected superstitious beliefs were categorized according to superstitious beliefs which agreed with scientific explanation and superstitious beliefs which did not agree with scientific explanation.

Results and Discussion

Of the 146 collected superstitious beliefs, 108 or 73.97% were found to have scientific basis and 38 of which did not agree with scientific explanation but were found to have led to misconceptions among the research participants. It was also found out that among the science-related superstitious beliefs only 11 (10.18%) for food Preservation and 10 (9.26%) for food preparation.

The percentage of the superstitious beliefs collected related to food preservation and food preparation is minimal. However, when the students were asked whether these superstitious beliefs are still practiced and believed today and whether the participants are aware that these superstitious beliefs have scientific explanations, they have claimed that some of the common beliefs.

Moreover, the students were probed on some of the superstitious beliefs collected about food preservation and food preparation that have scientific basis to ascertain their knowledge about the scientific concept behind the superstitious belief and the extent at which the belief continues to be practiced. Obviously, the students acquired the superstitious beliefs through what they see and observe from their elder. Through repetitive practice, superstitious beliefs became deeply rooted in them.

Moreover, superstition is part of the societal traditional practices and culture. The Meranaos possess certain beliefs and practices which they believe to be useful to them to their daily lives activities. Protect them from harm. The desire to practice these traditional beliefs in food preservation and food preparation are still existing and practicing by some of young tribe meranaos particularly in the remote areas of Lanao and other older and illiterate Meranaos who believe that they should perpetuate these practices of their ancestors.

Sources of Superstitious Beliefs

Sources of the superstitious beliefs were acquired by the research participants in every year level from each of the three research setting. It is revealed that except for MSU-Saguianan Community High School where the students claimed that they acquired the superstitious beliefs more from their parents, the students from the two other participating schools acquired superstitious beliefs were mostly from their grandparents. This is followed by the parents, either the mother or the father and next to these sources are relatives, friends and classmates, followed by the neighbors.

Local radio programs, the Madrasahs or Arabic schools have negligible contribution to the acquisition of these superstitious beliefs.

Findings revealed that grandparents are the major sources of superstitious beliefs is consistent with the claim of Cayongcat (1989) that cultural traditions, practices and beliefs which include superstitions are acquired by children especially among Meranaos because of close kinship. Likewise, neighbors, relatives, classmates and friends also contribute to the acquisition of superstitious beliefs may be attributed to the frequent interaction or association among them which is a trait that is unique among Filipinos. As Cayongcat (1989) further wrote, the series of traditional rituals, practices and beliefs observed and experienced by their children are stored in their mind and they keep and believe and practice on it. Gowing ,et al. (1974) also concurs that the traditional practices and cultural values are handed down by the Meranao old folks to the next generation.

Moreover, it may also be deduced from the results that relatives, friends and classmates which constitute 21.11% as sources of superstitious beliefs the extent at which they may have influenced the students to construct their own knowledge based on the knowledge shared to the. Since learning is an active social process, their current view on the concepts brought about by the superstitious belief, the students integrate that information into the already rooted belief thus perhaps making more firmed up misconception

Extent of Utilization of Superstitious Beliefs

The extent of utilization of the science–related superstitious beliefs in their day to day life goes on to this day. From the interview responses shared by the students, it may be inferred that the superstitious beliefs and traditional practices still prevail today although they are not aware that there are beliefs that they or adults experiences can be scientifically explained. It may be inferred further real life situations and experiences are not used in making connections between theory and practice.

Consistent with the above analysis, people tend to adhere to superstitious practices when dealing with uncertainty of outcomes of high interest, before the outcome is revealed by nature as interpreted by Skinner (1948) in that something incidental event happens and this is taken as a cause, even if no cause-and-effect happens between two factors. The accidental recurrence of the events then acts as positive reinforcement and facilitates survival and transmission of such belief.

Superstitious Beliefs that Led to Misconceptions

.All superstitious beliefs may have no scientific basis yet they greatly influence our way of thinking and doing things. As can be seen in the previous sampled responses ancestors did not clearly understand the causes of many things in their environment. The occurrence of events was thought to be bringing either good luck or bad luck. However, with the advent of science and technology, we have learned to investigate and interpret events scientifically. Superstitious beliefs we hold as adults may be a by-product of the processes we use to make sense of the world around us.

As Hood (2009), an experimental psychologist from the University of England, alluded the idea that we are born with brains that have evolved to make sense of a complex world by seeking patterns and trying to understand the mechanisms responsible for them. In doing so – and this is an intuitive process – the young sometimes come up with assumptions and misconceptions that later seem to be the basis of adult supernatural beliefs. In effect, these beliefs are a by-product of the reasoning behaviour we developed as children. Despite what we may have learned as we grew up, these misconceptions often remain with us as adults.

One of the points of interest of the researcher is the redirection of the science-related superstitious beliefs which brought about misconceptions in several science concepts among the research participants. After the process of classifying and coding the pooled SBs into appropriate categories, it was found that there were 38 superstitious beliefs collected and classified that do not agree with scientific explanation. These superstitious beliefs were related to natural phenomena like for example, formation of rainbow, lightning and thunder, eclipses, superstitious beliefs related to tooth growth and development and tooth eruption, tooth decay and toothache treatment, male circumcision, etc.

Superstitious beliefs that do not agree with scientific explanation

The influence of the Meranao ancestors on the young Meranaos to hold on to established traditional practices and culture, superstitious beliefs included, may bring about many science-related misconceptions. These 38 superstitious beliefs were identified to have no scientific explanation but have caused misconceptions among the students.

The manifested superstitious beliefs are socially and culturally adapted by many of the families of the students and with it formed the information which has been incorporated to the constructed ideas which resulted to misconceptions. The previously cited interview responses show the extent of developed misconceptions brought about by the superstitious beliefs. Tradition dictates that these superstitious beliefs, whether they agree with the scientific concepts or not, have become part of their culture and it may be difficult for the old and conservative Meranaos to let go the practice. Meranao customs, traditions and beliefs may have probably originated from the old folks considering that the Meranao culture were basically resistant to acculturation (Gowing, 1974)

The earlier responses shared by the students and discussions presented are consistent with the eight knowledge claims regarding misconceptions (Wandersee, Mintzes and Novak, 1994), as findings of a research on alternative conceptions in science where the researchers underscored that; Misconceptions are tenacious and resistant to extinction; Misconceptions often parallel explanations of natural phenomena offered by previous generations of scientists and philosophers; Misconceptions have their origin in diverse personal experience including direct observations, peer culture and language as well as in teachers' explanation and instructional materials; and often, teachers subscribe to the same misconceptions as their students.

Effects of Intervention

An intervention was done by the researcher to reduce if the not eradicate the misconceptions. The researcher utilized several methods such as the use of ICT like webquest, video clips, some others in the plan lessons and was validated by experts (pedagogy and content). Likewise, try-out was done prior to intervention. Results of the intervention reveals that very few were in agreement with the superstitious belief after the intervention in comparison with those who disagreed. An overall percentage of 95.33% of the 417 student participants either disagreed or strongly disagreed on the superstitious beliefs on all of the 38 superstitious which were subjected to intervention in order to redirect the misconceptions to scientifically accepted concepts. The percentage of respondents disagreeing on each of the 38 superstitious beliefs ranged from 92% to 97%. This may indicate the extent of redirection of the misconceptions to scientifically based concepts due to the intervention. The remaining 3% to 7% of the respondents who were found to be in agreement the superstitious belief may not have fully redirected their misconceptions or they still adhere to the belief. Perhaps they still want to hold on to these superstitious beliefs it will make them feel good about themselves when they follow certain behavioral patterns. It can

be an asset if the superstition promotes positive attitude and approach toward prevailing circumstances.

Among the Meranaos, especially the very old ones, to them some superstitions have rooted deeply so much so that they and their families and relatives or even the local population encounters psychological impact on their lives because of these traditions. These age-old superstitious beliefs that had been passed on from generation to generation may have taken shape as a habit. If they are lacking of these beliefs, they become insecure.

Superstitious beliefs are irrational beliefs and notions held by many not only among Meranaos which are based on fear, magical thinking, ignorance and blind faith. Igwe (2009) opined that these beliefs and notions lacked evidence or proof and do not have any basis in logic, fact, common sense or in reality. Many traditional and cultural practices that needed to be preserved either by written or verbal form. Such cultural practices are beliefs, norms, traditions, superstitions, myths, legends and other important features of social life and culture. Many of these superstitious beliefs are to teach certain moral value which when critically observed is scientific.

In spite of the advancement of science and technology some people still hold many superstitious beliefs. These superstitious beliefs, according to Olorundare (1998) that negative influence on lives especially on education as it impedes the individual's conceptualization of scientific knowledge by creating prior knowledge which is in contrast to science knowledge or concepts to be learned.

Conclusions and Implication

A total of 146 superstitious beliefs were collected from the research participants, 108 (73.97%) of the superstitious beliefs were with scientific basis. There were 11(1018%) superstitious beliefs that are related in food preservation and 10 (9.26%) about food preparation. It was found out that there are more of the Meranao superstitious beliefs about food preservation and preparation agree with scientific explanation. Most of the prior knowledge of the research participant about the collected superstitious beliefs had been handed by great grandparents down from generation to generation.

Most of the 38 superstitious beliefs, which were found to be the sources of the misconceptions, were related science concepts such as thunder and lightning, eclipse, rainbow, menstruation, pregnancy, circumcision tooth development and decay – all of which were associated with unfortunate events that befall them. Implementing the designed intervention, the student participants to this study claimed that their prior knowledge or misconceptions which were due to the superstitious beliefs have been redirected as evidenced by their written journals. It is therefore implied that existing misconception through superstitious beliefs can be remediated and can be redirected to correct conceptions.

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