

# Border Crossings in a Multicultural Classroom: Science among the Indigenous Learners

Karen Sequio Sumadic\*

Master of Arts in Education, St. Teresa National High School, Iloilo, Philippines

## Abstract

This study delved into the “journey” of the Ati as they traverse from their own way of explaining nature, their indigenous way of life, to a multicultural classroom, where science is taught more systematically. This study employed the qualitative research design, where the stories exemplify the dilemmas encountered by the Ati and how this indigenous knowledge can reconcile with what science taught in school. Furthermore, it provided a documentation and analysis of the ethnography of the Ati community, at the context of the school where the subjects of the study are enrolled, the Magayon School. Using the memory-banking technique, the researcher identified the indigenous experiences of the subjects. Concepts were then identified through memory-banking and concept-mapping. Through observation and interviews, it was then identified where these indigenous science concepts were applied. Interviews and Focused Group Discussions (FGDs) were then used to identify border crossings and the dilemmas encountered. Data analysis techniques included thematic analysis, horizontalization, and triangulation methods. Analysis of the results, revealed that the Ati have their own set of indigenous science. Majority of the respondents admitted that they are shy to mingle with non-Ati groups. As a result, they tend to be always with their Ati peers. The FGDs of the participants further revealed that the participants struggle for space within the society, where people would not “put labels on them. It was found out that these reactions tend to have positive or negative impacts of the Atis learning in school. Moreover, the study also reflected that the Ati appreciate the fact that their own indigenous ways are recognized by the school where they study. Seven of the nine respondents described science as difficult and reasons for these were: difficulty in understanding the medium of instruction, the dilemmas encountered, and the lack of interest in the subject. As to classroom instruction, they are open to learn using English as medium of instruction, yet they appreciate the lesson well when they understood it in their own terms. They also hope that being in school may change other people’s perception of them. It is likewise important to consider bilingual programs and native dialects to address the problems of transmission of learning using only one medium of instruction. Some respondents positive perception of science enables them to do well in class. However, some of the respondents admitted that they have difficulties in the subject; this depends on their motivation to schooling. Still others find their school science enjoyable only when they are grouped with their fellow Ati; as a result, they do not mingle with non-Ati groups very well. Such findings indicate that student interest and attitudes are critical aspects of science education.

**Keywords:** Journey; Nature; Techniques; Attitudes; Respondents

## Introduction

Mankind has lived in a world and society that has been forming itself for thousands of years and being made into what it is today through countless sets of interactions between individuals, groups, and institutions. Human identities reflect and are shaped out of these numerous sets of historical and current interactions. In order to more clearly understand who they are as individuals, people need to more clearly understand who they are as a society and as cultures. Understanding their culture will help people understand themselves and others [1]. Culture and learning are connected in important ways. Early life experiences and the value of a person’s culture affect both the expectations and the processes of learning. Thus educators need all the information they can get to help every learner succeed in school, and because a deep understanding of the learning process should provide a framework for curricular and instructional decisions. As such, success for the diverse student population in schools calls for a continual reexamination of an educator’s assumptions, expectations, and biases. A deep understanding of both culture and learning style differences is important for all educators. The relationship of the values of the culture in which a child is currently living, or from which a child has roots, and the learning expectations and experiences in the classroom is directly related to the child’s school success academically, socially, and emotionally [2].

Nowadays, educational institutions influence the environment

immeasurably; schools constitute a powerful force for social control and change, particularly, when the concept, scope, and thrust of education change. Education today is not merely instruction. It is not intellectual development alone; it is total human formation. It provides incentives and opportunities for the full release of innate gifts, virtues, and potentialities of the individual. Education for life should provide educational experiences and be helpful in solving problems, thus preparing the rising generation to make the world a better place for living. With such things in mind, the indigenous peoples, being inculcated nowadays in the mainstream of society, should be given equal privileges as those of the dominant culture. Although there is a need for the preservation of the indigenous social and cultural beliefs and values of the ethnic minorities, they should also be provided with a type of learning that will acculturate them to technology, better life ways, and greater productivity, especially in their main industries,

**\*Corresponding author:** Karen Sequio Sumadic, Master of Arts in Education, Sta. Teresa National High School, Iloilo, Philippines, E-mail: [sumadic\\_1984@yahoo.com](mailto:sumadic_1984@yahoo.com)

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such as agriculture, handicraft, handling and repairing machines, and production and sale of forest products. Education in science and technology is essential. The more the diffusion of the knowledge of science and technology, the more society will become enlightened and more willing to accept improved methods of production, tools, and machines. Education in the scientific and technological aspect can contribute to the solution of such problems as war, crime, poverty, intergroup conflict, labor management conflict, and other social issues. One way to help students become active agents in their society is by making the educational experience more pertinent, especially regarding science. Additional criteria should stress an educator's sensitivity to the differences of minority cultures, involvement in the local community with emphasis on outreach to parents, and use of culturally-relevant science. When students actively participate in science, they can also become active participants in the educational process. At the same time, science teaching will gain a more pertinent role in society and in the student's culture because their learning will be based on the students' interests and needs. This study is focused on the experiences of the Ati at San Miguel, Jordan, Guimaras, which closely revolve in their indigenous culture. As they gradually step into a multicultural school, they tend to experience structured science learning which, for their part, should be reconciled with their own indigenous science concepts. This study shows a border-crossing of an indigenous learner and the dilemmas he encounters as he embarks on a journey of science learning. The science educator plays an important part as the prime mover of learning and for making its process more effective by inclusion strategies of the culture of the indigenous people. The study is anchored on constructivism, a theory often associated with Piaget and Lev Vygotsky who see learning as a process in which subjects actively construct knowledge, and social interactionism, in which humans are viewed as pragmatic actors who continually must adjust their behavior to the actions of other actors. They see humans as active, creative participants who construct their social world, not as passive, conforming objects of socialization. Interactionists tend to study social interaction through participant observation. Ethnography, which is anchored on socio-cultural analysis, is also used in the study, which was particularly important in studying the Ati way of life.

Lastly, the concept of culturally-relevant pedagogy is a useful framework for inclusion strategies of the indigenous culture and indigenous science concepts and experiences, considered as the primary purpose of this study.

## Statement of the Problem

This study documented and analyzed the science learning experiences and science concepts learned by the indigenous learners, the Atis.

Specifically, the study sought answers to the following specific problems:

1. What science learning experiences do the Ati learners hold in their daily lives?
2. What science concepts are generated from these experiences?
3. How do they apply these science concepts in their daily lives?
4. How do they use these indigenous science concepts along with the school science concepts?
5. What dilemmas do they encounter in learning science in a multicultural school setting?

## Definition of terms

To aid in the intelligent interpretation of the study, the conceptual and operational definitions of the terms are hereby provided. Border crossing- is the journey a person makes from one culture or subculture to another [3]. In this study, Border crossing refers to the journey the Ati make from their own set of indigenous beliefs and practices to the school science concepts they learn in school. Culture - is the sum total of the indigenous ideas, beliefs, values, norms of behavior, and practices that distinguish human groups from one another.

In this study, Culture is a set of ideas, belief, values, norms of behavior, and practices among the indigenous students at the Magayon School. Indigenous People - The Indigenous Peoples Rights Act, defines Indigenous People (IP) as - a group of people or homogeneous societies identified by self-ascription and ascription by others, who have continuously lived as an organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed, and utilized such territories, sharing common bonds of language, customs, traditions, and other distinctive cultural traits. In this study, an Indigenous person refers to the Ati students in the mainstream of non-indigenous students at the Magayon School. Indigenous Science - relates to both science knowledge of long resident, usually oral culture peoples, as well as the science knowledge of all people who, as participants in culture, are affected by the world view and relativist interests of their home communities [4]. In this study, indigenous science refers to the knowledge, beliefs and practices among the Ati pupils and students. Learning - an integrated, ongoing process occurring within the individual, enabling him to meet specific aims, fulfill his needs and interests, and cope with the living process. In this study, learning refers to the assimilation of science concepts by the indigenous students. Multicultural education - an approach to teaching and learning that is based upon democratic values and beliefs, and seeks to foster cultural pluralism within culturally diverse societies and an interdependent world. In this research, multicultural education means the study of the nature of the Ati, including their values, beliefs, practices, and indigenous knowledge.

## Significance of the study

Findings of the study may help teachers in a multicultural classroom to - bridge the gap between indigenous and non-indigenous learners, by allowing the indigenous students to develop their potential by effectively generating science concepts and develop science process skills especially problem solving, in order for them to preserve their culture, and, at the same time, be adjusted to the demands of the present situations and be productive members of a fast-paced developing society [5-7]. Results of this study can motivate agreement among other researchers in IP education, in that institutional changes must be made, including goals and objectives, science teaching materials, science teaching methodology and learning experiences and, more importantly, changes in attitudes towards the groups as having potentials for development and change.

## Delimitation of the study

This paper describes the whole-community learning experiences of the Ati in the locality of Kati-kati, San Miguel, Jordan, Guimaras. It describes the journey of the Ati people, as they generate indigenous science from their daily life experiences, their application of these concepts, and how their prior knowledge conforms to the science concepts taught in school. Furthermore, the study is done on the

context of the school, located within the locality with the participants composed of Ati students enrolled in the same school. The researcher chose elementary as well as high school indigenous learners as subjects of the study. A variety of qualitative techniques were employed, including in-depth interviews, direct and participant observation, memory banking, narrative study, concept mapping and focused-group discussion. Documents as part of data-gathering phase were included and comprised the diaries of the participants. The researcher also sought the help of the tribe chieftain for this purpose. Although the researcher worked in the school where the subjects of the study are enrolled, a number of intricacies were perceived. Despite these problems, the researcher was able to gather a vivid Ati culture, and exhausted means so as to seek needed information for this purpose.

## Review of Related Literature

### Culture and society

Every child of every culture, race, ethnicity, socio-economic status, gender, age, ability, and talent deserves to have an equal opportunity to be successful in school. Knowing each student's culture is essential for providing successful learning opportunities. Understanding learning differences will help educators facilitate, structure, and validate successful learning for every student.

Each culture has boundaries, and its borders are knowingly and unknowingly crossed whenever a person encounters the culture. A border crossing, as described by Aikenhead [3], is the journey a person makes from one culture or subculture to another. Culture is defined by Phelan, Davidson, and Cao [5] as the norms, values, beliefs, expectations, or actions of a group. Subculture is defined as identifiable groups sharing qualities of a culture. Aikenhead [3] further added that border crossings can be either effortless or problematic. Effortless border crossings are those experiences in which people frequently engage, as the encountered culture is congruent with their belief systems. An example of an effortless border crossing would be a constructivist science teacher learning to utilize a new student-centered methodology in his class. The nature of the methodology would be consistent with the teacher's belief about teaching and would ultimately be subsumed into the teacher's repertoire of instructional strategies. Problematic border crossings are those causing difficulty in learning and those inconsistent with a belief system. For example, a science teacher who believes in norm-referenced assessment would experience a problematic border crossing as she learned about criterion-based assessment. She would find herself at odds with the espoused thought and may accept the presented information in order to comply with a district mandate or choose to not listen at all. As today's teachers work with diverse student populations, they encounter a variety of cultural differences; for example, the differences between themselves and their students, other teachers, and the school [8].

Reports contend that African Americans or Hispanic Americans learn in certain common ways. There are two sources of information about learning styles and culture. The first source includes descriptions and profiles of learners of certain cultural groups written by people familiar with these groups. Descriptions of minority students' learning patterns often are contrasted with the - majority of Anglo students 'ways of learning and with the expectations in the schools designed by this majority group. There are a variety of descriptions of typical learning patterns of African-Americans which states that students' desire for oral experiences, physical activity, and strong personal relationships. These patterns would call for classroom work that includes collaboration, discussion, and active projects. The same authors report

that mainstream white male Americans value independence, analytic thinking, objectivity, and accuracy [9-11]. These values translate into learning experiences that focus on information, competition, tests, grades, and critical thinking. These patterns are prevalent in most schools and they are established and generally administered by mainstream white males. The further away from this style of education a student is, the more difficulty he or she is adjusting. There are certain patterns of thinking, believing and valuing that schools encourage in students and that other patterns are discouraged within schools. One of the main conflicts that results from these socialization practices is the concept called cultural discontinuities. The cultural socialization of students in school involves the encouragement and outright requirement of patterns and beliefs that are specific to schools and to certain cultures, but are foreign to other cultures. Often, the culture and language of children are disregarded and devalued. The result may be such harmful effects as misinterpretation of student's actions, inconsistencies in expectations and treatment of students, and possible failure in the schools. There are also research study descriptions of specific groups that add to the present knowledge about links between culture and learning styles. In this class of inquiry, researchers administer learning and cognitive style assessments to produce a profile of a particular cultural group, to make comparisons with previously studied groups, or to validate a particular instrument for cross-cultural application. When self-report instruments are used, where the student fill out a response to a series of questions, the frequency of responses indicates certain preferences for specific approaches to learning. When a person is asked to respond to specific words and questions, the language is interpreted through personal cultural experience. Some of these assessment instruments test a person's strengths, or his ability to do tasks with a certain approach [12]. When strengths are tested and learning style inferred from the results of these instruments, a great deal of variety exists within like-cultural groups. Thus, the information obtained from formal assessments of learning styles of specific cultural groups has been based on different ways of assessing and describing style. Results from these different studies are often compared, ignoring and diminishing the relevance of the type of assessment instrument in the report of the findings. The variation in type of assessment instrument used often accounts for the seemingly contradictory information reported about groups of learners. Based on the sources of studies presented, it is obvious that culture and learning style are connected, but cautions about specific application of this information are necessary. When educators apply knowledge of culture and learning style to the classroom they face a number of unresolved areas and differences of opinion. Cox and Ramirez [13] observe that the concept of cognitive or learning styles of minority and other students is one easily oversimplified, misunderstood or misinterpreted. Unfortunately, it has been used to stereotype minority students or to further label them rather than to identify individual differences that are educationally meaningful.

### Discussion, lessons learned, ethical considerations, and recommendations

Chapter five is composed of four parts: discussion, lessons learned ethical considerations, and recommendations. Part one, discussion, provides arguments and explanations of the results of the study. Part two, lessons learned, presents the lessons the researcher learned during the course of the study Part three, ethical considerations, presents the moral significance that emerged from the analysis of the results. Part four, recommendations, advances suggestions and further proposals of based on the findings of the study [14,15].

## Discussions

The narratives described in the previous chapter along with the themes that emerged from the FGDs, interviews, and diaries of the participants are important information for the school staff and other researchers and those concerned with multicultural education. While these themes are of interest, it is important to compare them with the existing literature and to think of the context of this study. The relationship of the experiences of these Ati pupils and students to the themes is reviewed in the light of existing literature. Finally, closing comments provides an opportunity for reflections on the researcher's personal experiences during the study. The respondents of this study described their experiences as orally transmitted to them by their elders. The steps they have to undertaken in doing such activities are rather simple but described vividly. This finding is parallel to that of Cruikshank [7], that accurate transmission from generation to generation becomes critical for group survival; therefore, each generation is careful to get the critical aspects accurate. The multitude of indigenous information particularly in the field of medicine, though most of them are not tested in the laboratory, can be given attention by scientific experts.

Ogaw proposes that every culture has its own science and refers to the science in a given culture as indigenous science. The researcher's interviews and observations with the Ati, revealed that they have their own set of indigenous science which has been their guide for centuries. To avoid halit, for example, and as a form of protection, they recommend certain plants that can give protection to the body. These include libon (bagakay), Pawa, Manunggal, Halot nga Pula, also known as Duguan, Halot nga Puti, Halot nga Itom, Salibadbad. A certain length (as long as it is handy) of Libon is advised to be carried anywhere, the same with Manunggal to protect one from Halit while others are applied through pipi (plants are ground using mortar and pestle and placed on one's temple). Among these plants which are considered - powered is Lusot. This one is utilized by Tuob (smoke is administered) to a person about to take an examination in order for him to pass it. Another plant known to have powerful effects is Agsam. It is also administered through tuob or pipi. The Ati believe that they have counterattack abilities. When one inflicts halit on the person using Agsam, he will surely hit the inflictor with the kind of harm he intends to do to the victim and he will be the one to suffer such halit. Kalas is also one plant which is considered an important ingredient mixed with Lana (coconut oil) in a bottle. This is displayed or possessed by a person in order to be successful in business. This confirms that - each culture has science, a system for adapting in an environment. Almost all of the respondents admitted that they are shy to mingle with non-Ati groups because of the negative perceptions these groups may have towards them. As a result, they tend to be always with their Ati peers. This is consistent with the Racial and Cultural Difference theory, suggesting that people seem to form in-groups from which they gain their self-esteem. Those who are not within that comfortable in-group are then disliked or feared. Thus, there is discomfort when asked to talk about or interact with others. The FGDs of the participants also revealed that the participants struggled for a space in the society, where people would not - put labels on them and generalize them since they are of the same tribe. Because of this, they develop a feeling of low self-esteem, which, according to Noel [1], when an individual is commonly or consistently told, either in direct words or subtle images and ideas that their ethnic group is less worthy, the reactions can be seen as efforts to protect one's identity. In this study, it has been found out that these reactions may have positive or negative impacts on the Ati's learning in school. One may opt to improve his or her performance or may totally withdraw

and isolate himself/herself from the group. The former may have contradicted Phiney's findings which say, if the dominant group in the society holds the traits or characteristics of an ethnic group in low esteem, the ethnic group members are potentially faced with a negative social identity, while the latter is consistent with his findings. The study also reflected that if only minority groups (in this case, the Ati) were to express themselves freely, they say that they appreciate the fact that their own indigenous ways are recognized by the school in which they study. Thus, if instruction is - infused with customs and traditions of the groups, they were also given optimal science learning. Majority (seven) of the respondents described science as difficult and reasons for these were difficulty in understanding medium of instruction, the dilemmas encountered, and lack of interest towards the subject. The diaries also reflected that although they are having difficulties with the lessons because of the medium of instruction, they respect it because they are in school to learn.

As to classroom instruction, they are open to learn English, yet they appreciate the lesson well when they understood it in their own terms. They also hope that being in school may change other people's perception of them. The feeling of inadequacy of some Ati pupils and students confirms Irvine and York's affirmation that the culture of students of color or their way of life is often incongruous with the expected dominant cultural values, beliefs and norms of schools. These cultural differences are major contributions to the school failure of the students of color. Also, their difficulties in the language of instruction in schools emerge. As Guild [2] suggests, it is important to be willing to confront the issue of cultural identity and self-esteem. It is also important to consider bilingual programs and native dialects to address the problems of transmission of learning using a sole medium of instruction. Matutum's positive perception of science enables her to do well in class. However, some of the respondents admitted that they have difficulties in the subject; this depends on their motivation to schooling. According to Mapagsik, on the otherhand, sometimes, she has little interest in going to school but she still does because she is afraid of being reprimanded by her teacher. These cases show that their attitude towards the subject affects their school science experience. Still others find their school science enjoyable only when they are grouped with their fellow Ati, as a result of which they do not mingle with non-Ati groups very well. Such findings indicate that student interest and attitudes are critical aspects of science education. These psychological concepts help motivate students and make the educational process more pertinent. The respondents' desire to be always with their peers as revealed in the respondents' statement, - Ga-grupo-grupo kami ti kun waay sanda isa lang ko, as well as Matahum's statement when she is teased of the way she speaks, —Daw nahuya man ko bala Maam haw, kay kun upod ko sila, kun gahambal ko gani kinaray-a na bala, daw ginasunlog nila panghambal namun kay may tono na bala Maam and Mapagsik's statement —man an ko man Maam nga Ati ko pay kun manunlog sanda daw ginapamaan gid nanda nga lain tamun kananda. confirms the stages of ethnic identity development. Banks [6] describes one of the possible results for the individual in this first stage of ethnic identity development:

**Stage 1:** Ethnic psychological captivity - During this stage, the individual absorbs the negative ideologies and beliefs about his or her ethnic group that are institutionalized within the society. Consequently, he or she exemplifies low self-esteem. The individual may respond in a number of ways, including avoiding situations that bring contact with other ethnic groups or striving aggressively to become highly

culturally assimilated. The more that an ethnic group is stigmatized by the mainstream society, the more likely are its members to experience some form of ethnic psychological captivity.

**Stage 2:** Ethnic encapsulation - Individuals who have experienced psychological captivity and who have newly-discovered their ethnic consciousness tend to have highly ambivalent feelings towards their in-group and try to confirm, for themselves, that they are proud of their ethnic heritage and culture [16].

**Stage 3:** Reintegration stage - The individual may usually choose to avoid the issue of racism, rather than struggle to define a non-racist identity. Levinson describes the stage in additional terms as the attempt to escape the fatefulness of social positioning by attempting to ignore it, downplay it, erase it, or refuse it. The result is lack of awareness of how one's own actions and prejudices can affect others. Stereotyping is a mechanism used to create categories into which one can place large amounts of information. Individuals usually notice events or objects, especially those features that are salient, vivid, and that can be used as categories. Some commonly constructed categories include such physical descriptions as different sizes, colors, functions, or sounds. One distinguishes between people whom he has claimed as part of his in-group and those he considers an out-group. This type of stereotyping is dangerous for relationships among people and societal structures since it provides justifications for treating people differently based on stereotypes. Feelings of being stereotyped is reflected in Matutum's statement, - Waay pa sanda gani kamaan makuon dun sanda dayun basta Ati scrapper... As a result of this, Matutum studies hard to excel in class because she thinks it's a way of changing other people's notion of them. Mainabayanun also felt stereotyped when she heard mga —Ati, gapanghiwit? In this case, she felt a sense of audacity to defend her tribe [17,18].

## Conclusions

The culture of the Ati and other indigenous groups are heritage of the Filipino. Although various programs are being proposed to provide the Ati with equal opportunities with the non-Ati especially in terms of education, it pays to have a closer look into whether these programs are being implemented. Creating a context for science which includes the students' personal worlds, the daily lives of the students, and those that relate science to personal lives, the local community and interests of Ati learners are important. As this study was conducted, the researcher was also disturbed by their dilemmas. For some Atis, going to school is not a priority because it is considered a long-term task. Looking for an immediate source of income for the daily needs is more of a priority. Also, because they are considered as minority groups, they tend to feel that they should blend with the dominant group, resulting in their non-withdrawal from their own set of cultural elements and rather feel isolated or develop lower self-esteem. The researcher learned that they should be encouraged to have developed greater self-understanding, positive self-concepts, and pride in one's ethnic identity through sharing their culture with the group. She learned that as a teacher, she should be more attuned to the personal development of Ati students, a belief which contends that a better sense of self contributes to the overall intellectual, academic, and social achievement of the students. Students who feel good about themselves are likely to be more open and receptive to interaction with others. As a Non-Ati, the researcher feels that she should appreciate the Ati culture and respect their individuality. The academic curriculum should be more resilient and sensitive to the needs of this minority groups and their difficulties and dilemmas of being in a multicultural classroom.

## Ethical Considerations

Respectful research relationships acknowledge and affirm the right of the people to have different values, norms, and aspirations. Also essential to respectful research relationship is the recognition of the contribution of others and the consequences of research. Contributions to the research enterprise come in a variety of connected forms that should be respected. The trust, openness, and engagement of participating communities and individuals are as important as the scientific rigors of the investigation. The researcher deems it necessary to be informed about the Ati community and seek to engage in the spirit of integrity and respect, both in engaging the community and seeking the approval of the respondents and other key informants of the community. Before the research was undertaken, the consent of the participants was obtained. The research was also designed in a way that each participant's consent was clearly established through a signed form. There was clear responsibility for the researcher to do no harm to the Ati community and the things that they value. It was also considered that measures were identified to demonstrate transparency in the exchange of ideas and in negotiating about the purpose, methodology, conduct, dissemination of results, and potential outcomes of the research. The results of the research and the methods used were published in ways which permit scrutiny and contribute to public knowledge. The research results were also made available to the research participants.

## Recommendations

In light of the foregoing findings, the following recommendations are advanced:

1. Teachers are encouraged to be familiar with the practices of Ati communities for the enhancement of instruction among these cultural groups and minorities.
2. Administrators should strive to provide culturally appropriate pedagogical instruction among Ati groups.
3. Culturally-sensitive researchers are encouraged to recognize the importance of conducting culture-centered and ethical research among persons from ethnic, linguistic and minority backgrounds.
4. It is encouraged that Ati cultural elements be infused in teaching in a multicultural classroom. Integrating multicultural science in the curriculum may also help educators to fulfill the goals of maximizing the human potential, meeting individual needs, and teaching the whole child by enhancing feelings personal worth, confidence, and competence.
5. It is encouraged that needs of cultural groups be given attention and their - border-crossing be less problematic, by being sensitive to their needs.
6. Educators must be willing to empower scientific works outside the traditional texts in order to prepare students to live in their increasingly culturally diverse society. They must challenge students to become engaged with their identity that should be multi-culturally sensitive. They would be able to participate vicariously in different ways of life, and they expand their frame of reference for experiencing the world.
7. In order to promote identity development in all students, teachers need to make classrooms lively forums of open multicultural exchange. They must select materials that encourage cultural revision so students can both understand another culture's point of view and

see their own culture from an outsider's perspective and to reflect on the material they read. In such classrooms, students will experience learning environments which they explore.

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