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Editorial

One size fits all

Donald G Perrin

The British system of education was developed about three hundred years ago when the East India Company needed workers who could write clearly and add, subtract, multiply and divide. Modern curriculum adds elements of classical education: Trivia (grammar, rhetoric and logic) and Quadrivia (music, astronomy, geometry and arithmetic).

The beginning of the twentieth century was a perfect storm for developing new approaches to education. Psychologists such as John Dewey (Learning by doing) and Edward Thorndike (reinforcement, intellectual development) were laying foundations for improved methods of teaching and learning. Alfred Binet and Lewis Terman at Stanford University were perfecting tools to measure student abilities and intelligence. In industry, Frederick Winslow Taylor sought to improve industrial efficiency by Scientific Management (time and motion studies). Henry Ford introduced the assembly line and prepared the way for automation. All of these innovations had a major impact on educational practices for the century that followed.

Educational psychology continued to develop learning theories, conduct research, and translate the results into practical applications. Bloom's Cognitive, Affective, and Psycho-Motor Taxonomies of Behavioral Objectives provided a structure for curriculum and learning. Stanford-Binet tests initiated in the early 1900s became the basis of standardized tests and testing became a major industry to support education, training, market research, and recruitment. After the launch of Sputnik in 1957, the National Defense and Education Act funded major revisions in curriculum for science, mathematics and engineering. The current shortage of graduates for technology-based jobs has led to concern that educational goals, curriculum, instruction and testing methods are out of step with requirements of the twenty-first century.

Distance learning tools such as interactive multimedia and learning management systems are facilitating change, but too often these tools are used to emulate traditional methods of teaching. Perhaps the greatest step forward in distance learning is to give the learner flexibility, responsibility for learning, and an information rich learning environment with team activities and many opportunities for feedback.

The assembly line model developed by Henry Ford has become a basis for delivery of medical care, education, law, politics, and many aspects of commerce. Its strategy is to achieve mass production step-by-step where each step repeats identical processes. The assembly line concept is reflected in curriculum design and development, production and deployment of educational materials, and the way we pass students through the educational system.

Quality Control enhances the performance of assembly lines. Products that do not pass testing after assembly can be sent back for correction. W. Edwards Deming demonstrated how Total Quality Management and Continuous Quality Improvement can increase quality and reduce costs. In the Toyota manufacturing model, teams are trained to work collaboratively. Incentives help to reduce errors and improve overall performance. To practice continual improvement requires us, whether in manufacturing or education, to think of it as a **system**, not "bits and pieces". Fragmentation of education into "disciplines" causes gaps in the knowledge base that would be solved by integration.

Deficits in learning are accepted as normal. After years of schooling we label our products as A, B, C, D and F. C is average. Letter grades are not an adequate measure of educational success. Unlike industry, education does not make corrections at each step of the educational assembly line or even at the end of the educational program. Inferior letter grades mean learning is incomplete and the student is not ready for graduation. If automobile or electronic companies sent forward products of less than A grade, their businesses would fail. Why do we accept a failing system of education?

Investment in education is a key to a successful economy. Compared to industry, education budgets are severely limited and innovations adopted widely in commerce and everyday life are slow to be implemented in schools and classrooms. It is time to reassess what graduating students need to be successful and redefine curriculum, methodology, testing and performance standards meet the demands of the twenty-first century. It is also important to commit sufficient resources to assure success.

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Editor's Note: This research delves into the nature and consistence of student responses. It is all part of an exploration of the underlying mechanisms of the learning process and how best to design, construct and optimize interactive learning experiences for a diverse population of learners.

How student responses in online threaded discussions change over time

Holly Howard Ellis

USA

Abstract

As online education grows, educators search for strategies to harness the power of online discussions. Unfortunately, educators grapple with how to use and structure these tools effectively, and part of the difficulty with making these determinations is that students are inconsistent with their participation. Identifying trends in student participation and perceptions related to participation may reveal ways to most effectively integrate online discussions into courses. This study investigated the types and amounts of student responses in the discussions for a graduate online course to identify trends in student participation and changes in student participation over the course of the semester. Discussions were coded to determine the types of responses that students posted (i.e., soliciting, responding, reacting, chatting, and supportive). Patterns in students' use of these kinds of discussion posts were identified, and frequencies for the codes were calculated. When analyzing participation over the course of the semester, three trends were noted: chatting increased, supporting decreased, and reacting remained the most common type of response. To further investigate patterns identified in the coding process, a questionnaire that focused on students' perceptions of participation was administered. Results indicated that student perceptions of participation changes did not align well with actual changes. When students were asked about their responses to others' discussion posts, two common themes emerged – changes in amount and changes in attitude. Overall, this study suggests that trends may be identified in student participation in online discussions, and students' perceptions of their participation may not be accurate.

Keywords: student participations, student perceptions, online discussions, threaded discussions, online instruction, student discussion responses, discussion coding, participation trends, participation patterns, online education

Introduction

In 2006, online instruction was already considered a common element of mainstream education (Anderson), and its use in higher education has only continued to increase. As online education steadily grows in popularity, educators look for ways to foster a sense of connectedness among students and between students and professors, develop learning communities that support individual and collective learning, increase engagement, and support deeper forms of learning (Du, Yu, & Olinzock, 2011; Moisey, Neu, & Cleveland-Innes, 2008; Nandi, Hamilton, & Harland, 2012). Online discussions are one instructional strategy used to meet these goals, and instructors are still exploring how to use these tools effectively.

These tools, along with other forms of online communication, are transforming traditional approaches to interpersonal communication and the way students learn, construct and use information, and interact (Blau & Barak, 2012); and these tools are assisting in transitioning education from an instructor-centered experience to a student-centered experience in response to the call for online instructors to “make knowledge more accessible to learners” (Çelik, 2013, p. 666).

In an effort to identify ways to make this transition, some researchers have proposed various frameworks investigating the ways students interact in online discussions (Davidson-Shivers et al., 2000; Jin, 2005; Jugdev, Markowitz, & Mengel, 2004); however, variables related to student participation transcend how students participate, including variables such as how often, when and why they participate (Davidson-Shivers, Kim & Bateman, 2010; Hylton, 2007; Luyegu, & Kimble, 2012; Mason, 2011; Mazzolini & Maddison, 2003; Ransdell, 2013).

Students are not consistent in their participation (Su, Bonk, Magjuka, Liu, & Lee, 2009; Thomas, 2002), which suggests that educators must look for trends or patterns in student participation to unlock the mystery of how to use online discussions to facilitate engagement and learning. Some researchers (e.g., Dringus & Ellis, 2010; Kim, 2011; Kim & Bateman, 2010) have begun to explore trends and patterns in student participation in online discussions; however, more research is needed.

Online instructors grapple with ways to effectively use online discussions in ways that foster student participation (Brescia & Miller, 2005), and determining how to encourage student participation in online discussions has been a persistent struggle for online instructors (Khan, 2005). Historically, instructors have had difficulty identifying how and when to intervene in discussions to facilitate engagement and learning (Mazzolini & Maddison, 2007); however, by identifying trends in student responses in online discussions, it may be possible for educators to determine how students are utilizing these discussions; pinpoint ways that online discussions can be used most effectively to facilitate student interactions, discussions, and knowledge sharing; and decide how the potential of discussions can be capitalized on as an instructional medium in online education (Poole, 2000).

The benefits of online discussions are well documented (e.g., Hamann, Pollock, & Wilson, 2012; Johnson, 2008; Mason, 2011; Wise, Speer, Marbouti, & Hsiao, 2012; Yu, 2009); while online discussions are powerful teaching and learning strategies, their power can only be harnessed if students participate and engage in the discussions (Mason, 2011). Therefore, educators must determine how to harness the power of these tools by using them in ways that encourage student participation and engagement because participation is a central element of the learning process (Petress, 2006; Turner & Partick, 2004; Weaver & Qi, 2005). The ability to design effective online education is an essential skill set for instructors (McArthur, 2002), which necessitates an understanding of how to successfully use online discussions.

Structuring and effectively using online discussions remains a challenge for instructors for many of the reasons discussed previously (Johnson, 2005), and an added dimension to the investigation of how to effectively use online discussions and trends in student participation in online discussions is students' perceptions of their participation and their peers' participation in these discussions. How students perceive participation can impact their participation (Zhang, Fang, Kwok-Kee, & Wang, 2012), and students' perceptions of their participation and their actual participation may not always align (Çelik, 2013).

The types of online discussions are varied; however, the online discussions used as the focus of this present study were asynchronous threaded discussions embedded in an online learning management system. The purpose of this study was to identify trends in student responses in online threaded discussions, particularly in one graduate educational psychology course, to determine how student responses change over time, to investigate how students perceive changes in their own responses and in their peers' responses in online threaded discussions.

Four research questions were addressed.

RQ1: Are there trends in student responses in online threaded discussions?

RQ2: How do student responses in online threaded discussions change over the course of a semester?

RQ3: How do students perceive their participation in online threaded discussions?

RQ4: How do students perceive their peers' responses in online threaded discussions?

Methods

Participants

Participation in this study ($n=20$) were current students or recent graduates of graduate programs at two state universities in the southeastern region of the United States. Participants were purposively selected to ensure that those participating in the study were either currently enrolled in online courses requiring active involvement in online discussions or had taken such courses in the past. All students enrolled in one online graduate course (13 students), a course in psychological principles of learning required for the students' program of study, were included in the study. To provide a broader perspective not limited to the experiences of students from one class, seven additional individuals not enrolled in the course also participated. Approximately 85% of the participants were female.

Data Sources

Coded Online Threaded Discussions.

A modified version of the codes designed by Davidson-Shivers, Muilenburg, and Tanner (2001) was used to code 19 threaded discussions from the online course to determine the types of student responses to the discussions. [This coding system is grounded in the literature and has been used and modified by others, including Jeong and Davidson-Shivers (2006) and Davidson-Shivers, Ellis, and Amarasing (2005)]. Student responses could include multiple codes, and some independent statements were double-coded because they fit the description of more than one code. See Table 1 for selected codes and descriptions as offered by Davidson-Shivers et al. Examples of responses representing each of these codes are offered in the Results section.

Table 1
Selected Codes and Descriptions

Code Name	Description
Soliciting	"Any content-related question, command or request which attempts to solicit a response or draw attention to something."
Responding	"A statement in direct response to a solicitation (i.e., answers to question, commands, or requests). Generally these are the first response to the initial statements by the discussion leader or a direct response to a question by another student about the topic."
Reacting	"A reaction to either a structuring statement or to another person's comments, but not a direct response to the question."
Chatting	"Personal statements, jokes, introductions, greetings to one, etc. to individuals or the group."
Supportive	"Statements that although similar to chatting, there is an underlying positive reinforcement to the comment."

Davidson-Shivers, Muilenburg, & Tanner, 2001, pp. 356-357.

Open-Ended Questionnaire.

A ten-item questionnaire consisting of predominantly open-ended questions was administered as a means for gathering additional information related to potential trends identified in the coding process. Three closed-ended questions presented at the beginning of the questionnaire were used to gather specific information. The first questionnaire item was a contingency question informing those who had “taken an online course that required participation in the threaded discussions” to continue with the questionnaire and those who had not taken such a course to not continue with the questionnaire.

Data Analysis Procedures

The initial data collection was the coding of the discussions using a modified version of the codes designed by Davidson-Shivers et al. One graduate course was selected for the coding, and the 19 threaded discussions for the course were coded. The discussions spanned the duration of the one semester course. Rather than using a line-by-line coding or word count, student responses were coded by complete statements. Responses were assigned multiple codes if a response contained more than one kind of idea. Similarly, independent statements were given more than one code if the statement applied to multiple code categories. To ensure intercoder consistency in coding, the same researcher coded all discussions.

Frequencies for each type of code were generated. (See Figure 1.) From these frequencies, trends in student responses over the course of the semester began to emerge, and notes were made for possible patterns to pursue. Individual student responses for given codes surfaced, as well. For example, it became evident that certain students were more likely to “chat.” Frequencies in the responses coded as “soliciting,” “chatting,” and “supporting” were very close; whereas, there were approximately twice as many responses coded as “responding” as those in the three previously mentioned categories. There were approximately 1.5 times as many responses coded as “reacting” as those coded as responding.

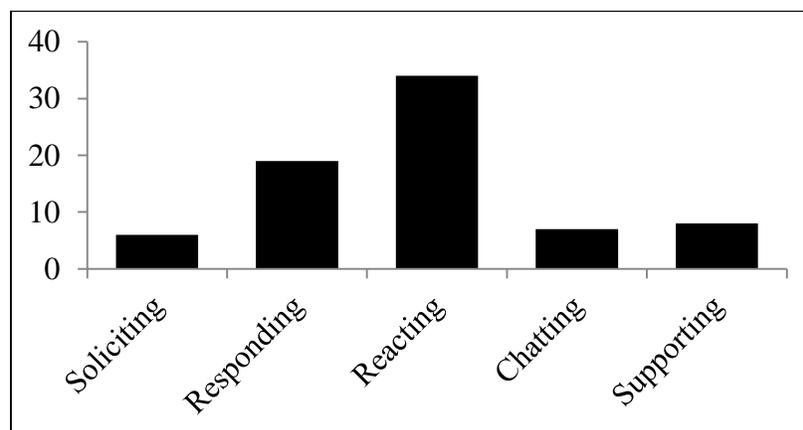


Figure 1. Frequency of responses by code.

After possible trends in student responses were identified using the coding process, a ten-item questionnaire was developed to discover student perceptions of their responses and of their peers' responses in the discussions. Questionnaire items focused on trends identified during the coding and analysis process. To ensure that individuals completing the questionnaire were representative of the target sample, a contingency question was included. The purpose of this question was to exclude those individuals who had never participated in online threaded discussions at the graduate level. Responses to open-ended items were analyzed to identify commonalities and to verify the identified trends. Participants' perceptions of online threaded discussions and responses to these discussions were beneficial in establishing why these trends might exist.

Results

Results of coding

The instructor posted an initial question or scenario in 19 discussion forums over the course of a semester to which students were asked to respond with original responses and reply to other students' comments. Students could reply in whatever fashion they chose. The coding scheme was used to categorize the kinds of responses made. A total of 669 responses were made to the 19 threaded discussions. The frequencies for each of the codes and examples of responses matching these codes are shown in Table 2.

Table 2
Code Totals and Examples

Code Name	Code Total	Code Example
Soliciting	92	"Are you sure their IQ changes or rather their IQ rest [sic] scores changed."
Responding	260	"If I were planning a lecture, let's say, on Rational Emotive Behavior Therapy, I would incorporate six things into my lecture to ensure that my students could retain and recall the information at a later date..."
Reacting	452	"I'm glad to know that others think there can be too much stimulation."
Chatting	126	"Annette, maybe you could teach me 'the' look. I don't seem to be able to intimidate anyone."
Supportive	128	"You nailed it."

Note. Code totals exceed the total number of responses to the 19 discussions (669) due to multiple codes being assigned to some responses.

Three trends were discovered from the data collected from the beginning to the end of the semester (over the course of the 19 discussions): chatting increased, supporting decreased, and reacting remained the most common type of response. One of the most consistent trends was the high number of "reacting" responses in comparison to other categories. For each discussion during the semester, reacting remained the most common response. Students were almost twice as likely to "react" as they were to respond, 3.5 times more likely to react than to support, almost 4 times more likely to react than to chat, and almost five times more likely to react than to solicit. Perhaps this phenomenon is explained by the fact that the use of this type of response did not change over the course of the semester, while the use of other types of responses did.

Overall, the amount of chatting increased over the course of the semester. (It should be noted that statements coded as chatting were often also coded as reacting because these "chatty" statements were often in response to another student's comment.) While it was not one of the most common types of responses, all students in the course chatted at least once. A handful of students were more likely to chat than others. For example, one student chatted in each of the 19 units except 2, making statements such as, "I wish you hadn't said cars. I need to go car shopping. Think [sic] truck totaled from rear ending someone else. That makes 2 in 6 months. I think she will learn to pay more attention. I hope anyway."

Many of the same students who were active chatters were also those students who offered supportive comments. Interestingly, the only student who did not offer any “supportive” statements was the student who chatted the most. In a pattern similar to the chatting, one set of students was more likely to offer supporting comments. For example, one student offered supportive comments in 18 of the 19 units, and another student offered supportive comments in 17 of the 19 units. These students made comments such as, “Yep, yep, yep. Very well put”; and “Very good, thought-provoking points.” All but one student in the class offered supportive statements at least once.

A much different trend from chatting was also found with supportive statements. There was an obvious decline in supportive statements over the course of the semester; although, sharp increases and decreases were evident. (See Figure 2.)

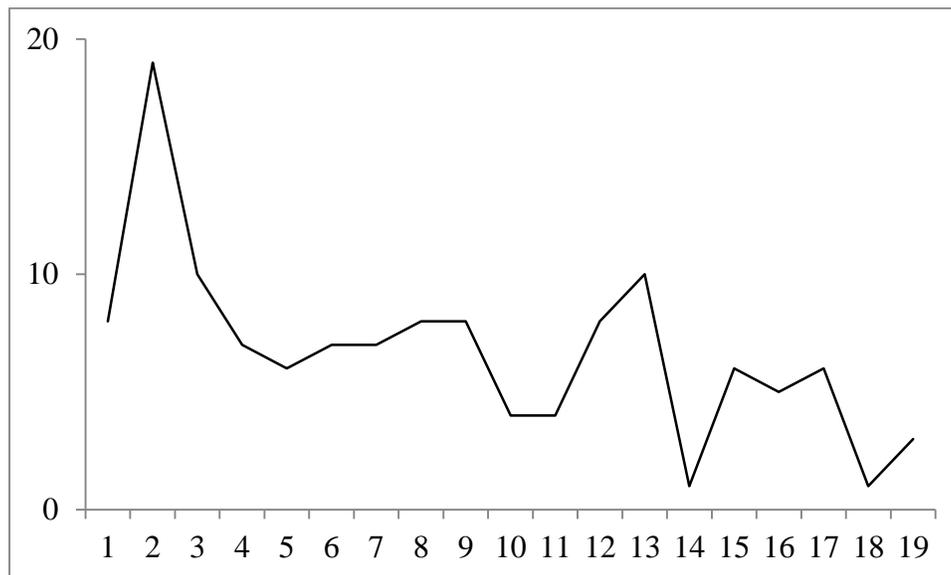


Figure 2. Number of supportive statements by threaded discussion.

For each threaded discussion, the instructor posted an initial question or assignment to which students were required to respond. After posting their own responses, students were asked to react to the ideas posted by other students. In the initial question or scenario, the instructor occasionally would tell students to reply to a certain number of students, and students almost always met these requirements. In other discussions, the instructor simply encouraged students to post their own responses early and to reply to other students’ posts; some students were more likely to heed the call to respond early, while others were more likely to procrastinate. In still other instances, the instructor gave no guidelines for replying. In these cases, many of the students did not reply as often, and others continued to reply to at least the number of students suggested in prior discussions. These results indicate that the instructions given by the instructor for number of responses often influenced the number actually posted, but this was not always the case. Questionnaire respondents echoed this sentiment when asked, “What factors, if any, influenced how many times you responded to other students’ responses/comments in a threaded discussion?” To this question, participants responded, “Course requirements and whether or not I felt I got my point across or helped someone else to” and “course requirement.”

Results of questionnaire data

Interestingly, questionnaire participants perceived more changes in student responses over time than the coding actually identified. Of the responses received on the questionnaire, only one indicated that no change existed, and that response related to personal change in postings. The other questionnaire respondents did feel that their own personal responses or the responses of peers changed over the course of the semester, and their rationales for these feelings varied.

When asked about changes in their own responses, most participants felt that their postings became shorter. One participant felt that she became more precise with postings as the semester progressed but that she responded more frequently to others. Another also felt that his answers gradually got shorter; but he added, “I begin to make shorter answers because I do not feel that very many instructors actually read the responses. They simply count how many you’ve made and give you a participation grade.” Still another participant offered, “I tend to get more to the point and respond less frequently to some postings. Fewer responses to posts are due in part that [sic] I only respond when I *really* have something to say that another student had not even closely mentioned in another posting.”

Most participants completing the questionnaire stated that they responded to other students’ responses/comments three to five times. The second most common response to this question was nine or ten. Few students ever offered more than five comments per threaded discussion.

When asked about changes in responses to the comments of others, two common themes emerged – changes in amount and changes in attitude. Several participants suggested that students’ responses declined over time, which contradicts the results of the codings. The participants sharing this opinion seemed to agree, making statements such as “Sometimes it looks like everyone gets tired of the task of responding.”

Questionnaire respondents making reference to changes in attitudes shared beliefs that students began to form “cliques” that responded to one another in each threaded discussion. (More than one participant made reference to “cliques” or groups who splintered off from the whole class.) They also suggested that students became more argumentative as the semester progressed – “Everyone is usually minding their own business in the beginning, posting and adding comments. Later comments get heated/argumentative.”

Students also gave varied responses when asked about how they felt the amount of friendly chatting changed over the course of the semester. One student felt that friendly chatting increased as the course progressed, stating that chatting “tends to increase as the course progresses”; another, however, believed that chatting was dependent on the course – “In one class, we were really polite and formal at the beginning, and then got chattier towards the end. In another, we did the reverse. I guess it all depends on the individuals concerned.” Still another student offered, “It dwindles down, sometimes.” Some participants seemed to enjoy chatting; others had little time or patience for it.

Discussion

As other researchers have proposed (e.g., Su, Bonk, Magjuka, Liu, & Lee, 2009; Thomas, 2002), students in this study were not consistent in their participation in discussions over the duration of the course, and changes in student participation were evident. Students perceived changes in their participation; however, the perceived changes were not necessarily consistent with the actual changes (Çelik, 2013).

Participants perceived changes in their own responses and others’ responses, but for varied reasons. These differences were founded on differing experiences and perceptions (Lee, Becker, & Nobre, 2012; Zhang, et al., 2012). Several participants felt that their own responses became

shorter over time, which was in part due to fatiguing with the process of participating in discussions. Others felt that instructors did not read the discussions nor did they participate, suggesting to students that the discussions were not important. Xie, DeBacker, and Ferguson (2006) maintained that when instructors placed greater value on discussions and overtly fostered participation, student participation increased as did participatory behaviors, such as number of responses, and Wallace (2003) supported the idea that students participated actively when discussions were valued. Active participation on the part of the instructor could increase the depth of thought in online threaded discussions and could reinforce the importance of participation in threaded discussions (Choi, Land, & Turgeon, 2007-2008).

Participants perceived noticeable changes in the nature of reacting. They felt that these changes were a result of changes in attitudes and in amount of reacting. Despite these perceived differences, the reacting category remained the highest category used, and the frequencies of this category remained high over the course of the semester. Nandi, Hamilton, and Harland (2012) found that “themes such as justification of posts, clarification of ideas, critical discussion of contribution, and suggestions of multiple solutions were valued and exercised by the students regularly” (p. 22). These themes could be considered characteristic of reacting posts, suggesting that Nandi et al. (2012) identified similar patterns of posting behaviors as were exhibited by students in the present study.

The overall high number of reacting responses is, in part, due to the nature of threaded discussions and the category. Threaded discussions rely on reactions to student responses. As a result of professor instructions given at the beginning of the semester, students may have felt obligated to respond at least once to the initial question posted by the instructor and to react to others’ statements multiple times. Nandi et al. (2012) argue that instructors should articulate expectations for participation in discussions at the outset of a course, including expectations for how many times students should post, how often they should post, and patterns for contributions. These directions set clear expectations for participation behaviors and impact participation for the duration of the course. Other researchers, however, might contradict this notion, claiming that students do not consistently meet expectations for participating (Dennen, 2008; Palmer, Holt, & Bray, 2008). Therefore, it should be noted that another factor contributing to high numbers of reaction statements is that chatting was double coded as reacting when the chat statement responded to another student’s comments, which inflated the number of reacting posts.

As noted in the results, students tended to increase their use of chatting during the course of the semester. This overall increase could be a result of their becoming more comfortable with one another as the course progressed and as they became more familiar with course expectations and threaded discussions. One participant’s comments reinforce this idea: “People tend to be more relaxed with the manner in which they respond as the course progresses.” This same individual added, “sometimes I make a joke or two as I get to know everyone.” Research by Zhang et al. (2012), which demonstrates that students are more likely to participate when they feel safe and when the learning climate demonstrates this safety, aligns with this finding.

The sudden drops and peaks in the use of chatting probably resulted from a lack of interest in topic or in difficulty applying the topic to their own lives. This notion is supported by Xie et al. (2006), who maintained that students were more likely to participate if they perceived the discussions to be valuable, interesting, and enjoyable. Nandi et al. also found that student participation increased when discussions could be related to their personal and professional lives.

Most chatting centered around relating the unit content to life and experiences, or it spun off of an idea offered by a student who had translated the concept into personal meaning. This trend could be explained by conclusions made by Jin (2005), who found that participation increased when discussions were personally relevant to students and when they recognized the practical

application to their own lives. Chatting also waned when students struggled to comprehend concepts. A plausible explanation for this trend is that students were focusing their participatory behaviors and efforts on verbalizing, processing, and internalizing course concepts when the concepts were more complex (Ferdig & Roehler, 2003-2004).

Another explanation for the trend in chatting could be comfort. Students are more likely to chat with individuals with whom they feel comfortable and with students they know. This comfort level grows as a sense of community is developed in an online environment, and a deeper sense of community can enhance student participation and engagement (Gallagher-Lepak, Reilly, & Killion, 2009). Perhaps as students become more comfortable with one another as the semester progresses, they feel it is safer to chat (Zhang et al., 2012). Probably the best explanation for the varied responses to changes in friendly chatting came from one questionnaire response: "It seems like people that take online classes sometimes have in person [sic] relations with people that they respond online. I think in class friendships and comradery [sic] carries over in to the online environment if it is possible."

Although all students chatted at least once and although some chatting was content-related, some students had little patience for the "small talk" that was not content-related. These students tended to get frustrated and did not respond to "chatty" comments. One student stated, "Some students just post dumb comments all the time, so I never respond to them." Another stated that "some people see chatting as a sparring class and won't get off their soap box [sic]."

The use of supportive comments declined over time. Students used supportive comments in the beginning of the semester to stimulate conversation, and it seemed as if they felt the need to encourage one another. As the semester progressed, students settled in to the course and felt less need to encourage. They were more likely to fulfill the course requirements with relation to threaded discussions (i.e., post a personal response and react to others' responses) and then exit the threaded discussion. In a study by Naughton, Smeed, and Roder (2011), one student shared what could possibly be an explanation for the trend in the decline of supportive comments. The student reported,

I know I want to be an active part of it. I know what I have to do; it's finding the time to be completely involved in it at the moment. I might flick in during the day and read the discussions but you know, as people keep telling me, I've got a lot on my plate so my main focus is to get the assignments done and in (p. 108-109).

Naughton et al. reported the sentiments of another student with similar perspectives who stated that "sometimes it's like I haven't got the time. I'm so busy trying to get everything done that I've got to do instead of trying to help someone out, or trying to go through all my readings, but then I know -- that's what we're supposed to be doing" (p. 109).

The feelings of these students may explain the trend in the decline in supportive comments: as the demands on students' time increase over the course of a semester, they must strategically select the tasks that they will devote time to, and extraneous tasks, such as offering supportive comments, are not perceived as crucial as focusing on required tasks, such as graded assignments (Naughton et al.)

One group of students, however, was more likely to offer supportive comments than others. These same students commonly mentioned their children in their responses. It is possible that these individuals are accustomed to offering supportive feedback in daily lives with children. It is possible that the daily offline behaviors of these individuals transferred to their online behavior. Although others (e.g., Huang & Yang, 2013) have published dissenting findings, Ferriter (2011), suggests that some individuals exhibit similar behaviors online and offline. As a result of the

opposing research in this area, this may or may not be a plausible explanation for the trend identified in student participation related to supportive comments.

Conclusion

Faculty members are continually challenged by how to engage students in online courses. Online discussions are one way that this engagement is occurring. Most online instructors value student interaction and seek ways to integrate methods to foster student interaction into their online courses. Until new, innovative alternatives to online interaction are developed, threaded discussions are likely to remain the prominent vehicle by which student interaction and discussions occur. If threaded discussions continue to be integral components of online courses, educators and instructional designers need to identify and understand trends and changes in student responses to online discussions in order to use them most effectively.

The results of this study indicate that student responses in online threaded discussions do change over the course of a semester and that there are possible trends in these changes. This study also demonstrated that students believe that their own personal responses and peer responses change over time. Based on these results, educators should continue research in this area in an attempt to design more effective online instruction, particularly through the use of online threaded discussions.

References

- Anderson, M. A. (2006). What's it like to take an online class? *Multimedia and Internet@Schools*, 13(4), 34-36.
- Blau, I., & Barak, A. (2012). How do personality, synchronous media, and discussion topic affect participation? *Educational Technology and Society*, 15(2), 12-24.
- Brescia, W. F., & Miller, M. T. (2005). Enhancing graduate students' performance as threaded discussion leaders in a web-based proposal writing course. *The Quarterly Review of Distance Education*, 6(4), 385-396.
- Çelik, S. (2013). Unspoken social dynamics in an online discussion group: The disconnect between attitudes and overt behavior of English language teaching graduate assistants. *Educational Technology Research and Development*, 61(4), 665-683.
- Choi, I., Land, S. M., Turgeon, A. (2007-2008). Instructor modeling and online question prompts for supporting peer-questioning during online discussion. *Journal of Educational Technology Systems*, 36(3), 255-275.
- Davidson-Shivers, G. V., Ellis, H. H., & Amarasing, K. (2005). *How do female students perform in online debates and discussion?* In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2005*. (pp.1972-1977). Chesapeake, VA: AACE.
- Davidson-Shivers, G. V., Luyegu, E., & Kimble, B. E. (2012). An analysis of asynchronous discussions: A case study of graduate student participation in online debates. *Journal of Educational Multimedia and Hypermedia*, 21(1), 29-51.
- Davidson-Shivers, G. V., Muilenburg, L. Y., & Tanner, E. J. (2001). How do students participate in synchronous and asynchronous online discussions? *Journal of Educational Computing Research*, 25(4), 351-366.
- Dennen, V. P. (2008). Pedagogical lurking: Student engagement in non-posting discussion behavior. *Computers in Human Behavior*, 24, 1624-1633.

- Dringus, L. P., & Ellis, T. (2010). Temporal transitions in participation flow in an asynchronous discussion forum. *Computers & Education, 54*(2), 340-349.
- Du, J., Yu, C., & Olinzock, A. A. (2011). Enhancing collaborative learning: Impact of question prompts design for online discussion. *Delta Pi Epsilon, 53*(1), 28-41.
- Ferriter, W. M. (2011). Positive digital footprints. *Educational Leadership, 68*(7), 92-93.
- Gallagher-Lepak, S., Reilly, J., & Killion, C. M. (2009). Nursing student perceptions of community in online learning. *Contemporary Nurse, 32*(1-2), 133-146.
- Hamann, K., Pollock, P., & Wilson, B. (2012). Assessing student perceptions of the benefits of discussions in small group, large class, and online learning contexts. *College Teaching, 60*(2), 65-75.
- Hou, H., & Ho, C. (2011). Applying time series analysis to forecast learners' participation patterns in blog instructional activities: A preliminary study. *British Journal of Educational Technology, 42*(5), E91-E93.
- Huang, C. L., & Yang, S. C. (2013). Study of online misrepresentation, self-disclosure, cyber-relationship motives, and loneliness among teenagers in Taiwan. *Journal of Educational Computing Research, 48*(1), 1-18.
- Hylton, M. E. (2007). Facilitating online learning communities: A comparison of two discussion facilitation techniques. *Journal of Technology in Human Services, 25*(4), 63-78.
- Jeong, A. C., & Davidson-Shivers, G. V. (2006). The effects of gender interaction patterns on student participation in computer-supported collaborative argumentation. *Educational Technology Research and Development, 54*(6), 543-568.
- Jin, S. H. (2005). Analyzing student-student and student-instructor interaction through multiple communication tools in web-based learning. *International Journal of Instructional Media, 32*(1), 59-67.
- Johnson, C. G. (2005). Lessons learned from teaching web-based courses: The 7-year itch. *Nursing Forum, 40*(1), 11-17.
- Johnson, J. (2008). The relative learning benefits of synchronous and asynchronous text-based discussion. *British Journal of Educational Technology, 39*(1), 166-169.
- Khan, S. (2005). Listservs in the college science classroom: Evaluating participation and "richness" in computer-mediated discourse. *Journal of Technology and Teacher Education, 13*(2), 325-351.
- Kim, H. K. (2011). Promoting communities of practice among non-native speakers of English in online discussions. *Computer Assisted Language Learning, 24*(4), 353-370.
- Kim, H. K., & Bateman, B. (2010). Student participation patterns in online discussion: Incorporating constructivist discussions in online courses. *International Journal of E-Learning, 9*(1), 79-98.
- Lee, J. W., Becker, K., & Nobre, H. (2012). Impact of culture on online management education. *Cross Cultural Management, 19*(3), 399-420.
- Mason, R. B. (2011). Student engagement with, and participation in, an e-forum. *Journal of Educational Technology & Society, 14*(2), 258-268.
- Mazzolini, M., & Maddison, S. (2007). When to jump in: The role of the instructor in online discussion forums. *Computers and Education, 49*(2), 193-213.
- McArthur, D. (2002, Fall). Investing in digital resources. *New Directions for Higher Education, 119*, 77-84.
- Moisey, Neu, Cleveland-Innes, M. (2008). Community building and computer-mediated conferencing. *Journal of Distance Education, 22*(2), 15-42.
- Nandi, D., Hamilton, M., & Harland, J. (2012). Evaluating the quality of interaction in asynchronous discussion forums in fully online courses. *Distance Education, 33*(1), 5-30.

- Naughton, C., Smeed, J., & Roder, J. (2011). *International Review of Research in Open & Distance Learning*, 12(2), 103-121.
- Palmer, S., Holt, D., & Bray, S. (2008). Does the discussion help? The impact of formally assessed online discussion on final student results. *British Journal of Educational Technology*, 39(5), 847-858.
- Petress, K. (2006). An operational definition of class participation. *College Student Journal*, 40(4), 821-823.
- Ransdell, S. (2013). Meaningful posts and online learning in Blackboard across four cohorts of adult learners. *Computers in Human Behavior*, 29(6), 2730-2732.
- Su, B., Bonk, C. J., Magjuka, R. J., Liu, X., & Lee, S. (2005). The importance of interaction in Web-based education: A program-level case study of online MBA courses. *Journal of Online Interactive Learning*, 4(1), 1-19.
- Thomas, M. J. W. (2002). Learning within incoherent structures: The space of online discussion forums. *Journal of Computer Assisted Learning*, 18, 351-366.
- Turner, J. C., & Patrick, H. (2004). Motivational influences on student participation in classroom learning activities. *Teachers College Record*, 106(9), 1759-1785.
- Wallace, R. M. (2003). Online learning in higher education: A review of research on interactions among teachers and students. *Education, Communication & Information*, 3(2), 241-280.
- Weaver, R. R., & Qi, J. (2005). Classroom organization and participation: College students' perceptions. *The Journal of Higher Education*, 76(5), 570-601.
- Wise, A., Speer, J., Marbouti, F., & Hsiao, Y. (2013). Broadening the notion of participating in online discussions: Examining patterns in learners' online listening behaviors. *Instructional Science*, 41(2), 232-243.
- Xie, K., DeBacker, T. K., & Ferguson, C. (2006). Extending the traditional classroom through online discussion: The role of student motivation. *Journal of Educational Computing Research*, 34(1), 67-89.
- Yu, S. W. (2009). The impact of online discussion on face-to-face discussion and academic achievement. *American Secondary Education*, 37(2), 4-25.
- Zhang, Y., Fang, Y., Kwok, Kee, W., & Wang, Z. (2012). Promoting the intention of students to continue their participation in e-learning systems. *Information Technology & People*, 25(4), 356-375.

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Editor's Note: In developing countries, particularly in rural and remote areas, fledgling education systems are evolving based on curriculum and methods from more advanced educational systems. Training and infrastructure must be developed according to local needs and resources. This study observes the effects of recent changes and guides the next steps for advancement of the business studies curriculum.

Adequacy of material resources required for effective implementation of upper basic education business studies curriculum in Nigeria

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Nigeria

Abstract

This work is a descriptive survey of the adequacy of the material resources required for effective implementation of upper basic education business studies curriculum in Ebonyi State. Two research questions and two hypotheses guided the study. The entire population of two hundred and forty-one (241) business studies teachers were used for the study. A four-point structured questionnaire, with a reliability coefficient of 0.81 was administered on the 241 respondents. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses. The two null hypotheses were accepted at 0.05 significant level. The results showed that business studies facilities, business studies curriculum and compliant textbooks are marginally adequate; there is no significant difference between the adequacy of business studies facilities in public and private junior secondary schools; and there is no significant difference between the adequacy of business studies curriculum compliant textbooks in urban and rural junior secondary schools. The study recommended that government and other stakeholders should pool their resources and work together to ensure that adequate business studies facilities and textbooks are provided since education for all is the responsibility of all.

Introduction

Universal Basic Education (UBE) is an educational reform programme of the Nigerian government that provides free, compulsory, and continuous 9 years education in two levels: 6 years of primary and 3 years of junior secondary education for all school aged children. According to the Universal Basic Education Commission (UBEC, 2006), the legal framework of UBE was signed into law in May, 2004 in order to address section 18(1) and (3) of the 1999 Constitution of the Federal Republic of Nigeria (FRN) which provide that;

1. Government shall direct its policy towards ensuring that there are equal and adequate educational opportunities at all levels.
2. Government shall eradicate illiteracy; and to this end, government shall as and when practicable provide:
 - (a) free, compulsory and universal primary education;
 - (b) free secondary education;
 - (c) free university education; and
 - (d) free adult literacy programme.

Ube programme constitutes: Early Child Care Development Education (ECCDE) for children aged 3-5 years; 6 years primary education for children aged 6-11 years; and 3 years Junior Secondary School (JSS) education for children aged 12-14+. The ECCDE is not compulsory but the 6 years of primary and 3 years of JSS education are compulsory. The 9-year continuous basic

education becomes necessary because, according to UBEC (2006), completion of primary school does not equip a child with the necessary life skills to become self-reliant.

From the introduction of the 9 year basic education programme according to FRN (2007), it becomes imperative that the existing curricula for primary school and JSS be reviewed, restructured and realigned to fit into the 9-year education programme. Then the National Council on Education (NCE) approved a new curriculum structure for lower basic education curriculum (primary 1-3), middle basic education curriculum (primary 4-6) and upper basic education curriculum (JSS 1-3). FRN (2007) discloses that the upper basic education business studies curriculum on which this study is based was adapted from the original work of the Comparative Education Study and Adaptation Centre (CESA) which was presented to the joint consultative committee on education in 1982. The alignment of this curriculum gives due consideration to the need to provide students with the ability and skills to be gainfully employed upon completion of their programme as well as prepare them for setting up their small businesses as entrepreneurs.

Nweze (2008) applauds this alignment when he points out that one of the national education goals is the acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as an equipment to live in and contribute to the development of one's society. He believes that acquisition of appropriate skills is necessary at this level because, after junior secondary education, one may either continue full-time studies, combine work with study, or embark on full time employment.

Pattison and Berkas (2000) believe that the final step into curriculum planning consists of implementing the curriculum in the classroom and the continued monitoring reflection, and evaluation to improve it. Okello and Kagoire (1996:124) define curriculum implementation as "a network of varying activities involved in translating curriculum designs into classroom activities and changing people's attitudes to accept and participate in these activities". Similarly, Okafor (2007) believes that curriculum implementation is the act of taking actions towards the realization of the intention of a curriculum plan.

A curriculum cannot be implemented in a vacuum, hence, FRN (2007) explains that it is crucial that adequate provision of human and material resources be made for the implementation of upper basic education business studies curriculum in order to promote saleable skills acquisition and employment generation possibilities. In line with this explanation, Saba (2007) sees school facilities and equipment as a pillar in support for effective teaching and learning to take place in an ideal environment. Okpanku and Uchechi (2008) believe that facilities and equipment help to stimulate interest and also enhance retention of ideas.

Hamza (2000) and Nwagwu (2007) regret that the short supply of instructional materials in Nigerian secondary schools hinder effective teaching and learning. Igu (2007) notes that school libraries, where available, are filled with old and obsolete books that are irrelevant. Mustapha (2011) complains that majority of the teachers in the south-east zone are still battling to catch a glimpse of the new curriculum. Okoroma (2006) affirms that inadequate laboratories, libraries and other teaching and learning materials, among others, constitute the major constraints of effective implementation of the UBE programme.

Nwakpa (2007) affirms that material resources are not evenly distributed. He asserts that these resources are more adequate in private secondary schools than in public secondary schools. Similarly, Egwu (2009) asserts that there are significant differences in the management of schools in urban and rural areas. Ani (2005) and strong (2006) see these differences to exist in the provision of educational materials, adequacy of staff and conducive environment. Starr and White (2008) specifically affirm that rural areas get little support and inadequate personnel in contrast with their urban counterparts.

Ulifun (1986) describes availability, maintenance and adequacy of teaching facilities as sine qua non for the attainment of educational goals. Esene and Okoro (2008) see teaching materials as devices used to supplement or complement teachers' talks. Odigbo (2005) agrees that adequate facilities ensure meaningful teaching and learning. Against this backdrop, it is crucial that adequate provision of material resources be made in order to effectively implement the upper basic education business studies curriculum in Ebonyi State.

Policy implementation nay curriculum implementation is not done in a vacuum. Adequacy of material resources is a condition par excellence for the implementation of the curriculum under study. Inadequate teaching and learning facilities which Osadolor (2007) identifies as a major cause of the failure of all free education programmes attempted in Edo state, has been identified by Okoroma (2006) as a major constraint of UBE in rivers state. The upper basic education business studies curriculum is deep, appropriate and interrelated in content. It is expected to produce the best learning outcome on the premise of adequate provision of human and material resources. For Ebonyi State which Okike (2006) describes as the least literate south eastern state and an educational disadvantaged state to grow, her education system must develop appropriate type of skills in the recipients. This is possible if adequate teaching and learning resources are provided. This work, therefore, tries to establish the adequacy of material resources required for effective implementation of this curriculum in Ebonyi State.

Purpose of the study

The main purpose of this study is to determine the adequacy of material resources required for effective implementation of upper basic education business studies curriculum in ebonyi state. Specifically, the study intends to:

1. Determine the adequacy of business studies facilities at the upper basic education (jss) level in ebonyi state;
2. Determine the adequacy of business studies curriculum compliant textbooks at the upper basic education level in ebonyi state.

Research questions

These following research questions guided the study:

1. What is the level of adequacy of business, studies facilities in junior secondary schools (JSS) in Ebonyi State?
2. What is the level of adequacy of the provision of business studies curriculum compliant textbooks in JSS in Ebonyi State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- Ho₁: there is no significant difference between the adequacy of business studies facilities in public and private JSS.
- Ho₂: there is no significant difference between the adequacy of business studies curriculum compliant textbooks in urban and rural JSS.

Methodology

The population of this study comprised of two hundred and forty-one (241) business studies teachers in Ebonyi State. The researchers considered the population affordable and decided to use the entire 241 business studies teachers for the study. The researchers distributed 241 copies of

the questionnaire but only 228 were correctly filled, returned and were eventually used for the study.

A structured questionnaire which was developed by the researcher and validated by three (3) experts was used for data collection. The reliability of the instrument was tested using Cronbach Alpha and it yielded a reliability coefficient of 0.81 and was adjudged as reliable for the study.

Data collected were analyzed using mean(\bar{x}), standard deviation and t-test. While mean and standard deviation were used to answer the research questions, t-test was used to test the null hypotheses. Any item that had a mean score between 0.1 and 1.0 was interpreted as very lowly adequate, 1.1 to 2.0 was interpreted as lowly adequate, 2.1 to 3.0 was highly adequate while 3.1 to 4.0 was very highly adequate. The decision rule of bench mark was to interpret any grand mean greater than or equal to 2.1 ($\bar{x} \geq 2.1$) as adequate and any grand mean less than or equal to 2.0 ($\bar{x} \leq 2.0$) as inadequate.

Area of the study

The study was carried out in Ebonyi State, Nigeria.

Data analysis

The findings of this study are presented in tables 1 to 4 below

Table 1
Mean and standard deviation results based on
level of adequacy of school facilities

S/n	Item	Vha	Ha	La	Vla	\bar{x}	S.d	Interpretation
1	Typing room	14	45	72	97	1.89	0.93	La
2	Dom well desk	8	16	28	176	1.37	0.77	La
3	Swivel typing chair	4	23	33	168	1.39	0.74	La
4	Electric typewriter	11	33	54	130	1.67	0.89	La
5	Manual typewriter	10	76	82	60	2.16	0.87	Ha
6	Ink duplicating machine	4	50	86	88	1.87	0.81	La
7	Carbon paper	15	65	99	49	2.20	0.85	Ha
8	A4 typing sheet	12	73	84	59	2.17	0.88	Ha
9	A5 typing sheet	9	53	89	77	1.97	0.86	La
10	A4 headed typing sheet	10	61	85	72	2.04	0.87	La
11	A5 headed typing sheet	7	45	77	99	1.83	0.85	La
12	Headed memo pad	8	33	77	110	1.73	0.84	La
13	A4 duplicating paper	14	68	67	79	2.08	0.94	La
14	Stencil	7	42	110	69	1.94	0.78	La
15	Typewriter eraser	8	35	103	82	1.86	0.79	La
16	Tipex	16	55	98	59	2.12	0.88	Ha
17	Tape recorder	6	28	52	142	1.58	1.01	La
18	Sound tapes/ cassette	5	22	53	148	1.49	0.76	La

19	Shorthand pen	10	18	60	140	1.55	0.82	La
20	Unruled chalkboard	65	96	26	41	2.81	1.04	Ha
21	Ruled chalkboard	17	20	37	154	1.56	0.93	La
22	Shorthand note book	13	67	65	83	2.04	0.92	La
23	Photocopier	17	36	65	110	1.83	0.96	La
24	Filing cabinet	15	39	58	116	1.79	0.95	La
25	Perforator	16	55	103	54	2.15	0.86	Ha
26	Stapling machine	17	73	92	46	2.27	0.87	Ha
27	Guillotine	8	14	58	148	1.48	0.77	La
28	Stop watch	12	21	90	105	1.74	0.84	La
29	Alarm clock	14	39	82	93	1.89	0.90	La
30	Single hole punch	7	66	92	63	2.07	0.83	La
31	Double hole punch	7	27	100	94	1.77	0.78	La
32	Incoming register	24	60	96	48	2.26	0.91	Ha
33	Dispatch book	24	62	88	54	2.25	0.94	Ha
34	Visitor's book	36	63	92	37	2.43	0.94	Ha
35	File jacket	47	73	68	40	2.56	1.01	Ha
36	File tags	54	69	64	41	2.59	1.04	Ha
37	Bulletin board	11	22	47	148	1.54	0.86	La
38	Telephone message pad	8	27	39	154	1.51	0.84	La
39	Request form booklet	10	35	57	126	1.69	0.89	La
40	Business documents specimen	13	34	57	124	1.72	0.92	La
41	Postage book	16	29	61	122	1.73	0.94	La
42	Adding/listing machine	9	29	56	134	1.62	0.86	La
43	Ruled ledger sheet	5	44	92	87	1.86	0.80	La
44	Analysis sheet for trial balance	7	39	79	103	1.78	0.84	La
45	Store record book	15	38	74	101	1.86	0.93	La
	Grand mean					1.90	0.88	Inadequate

Vha= very highly adequate, ha = highly adequate, la= lowly adequate, vla = very lowly adequate.

Table 1 shows that thirty-three (33) out of the forty five facilities required for the implementation of upper basic education curriculum on business studies were lowly adequate. The lowly adequate facilities are those with serial numbers 1-4, 6, 9-15, 17-19, 21-24, 27-31 and 37-45 whose mean scores fell between 1.1 and 2.0. Twelve facilities with serial number 5, 7, 8, 16, 20, 25, 26, and 32-36, whose mean scores fell between 2.1 and 3.0, were highly adequate. None of the faculties was either very highly adequate or very lowly adequate. The grand mean is 1.90 which implies that the facilities are inadequate. The standard deviations show that the individual mean scores do not vary widely from the grand mean. Is 1.90 which implies that the facilities are inadequate. The standard deviations show that the individual means scores do not vary from the grand mean.

Table 2
Mean and standard deviation results based on the level of adequacy
of business studies curriculum compliant textbooks

S/n	Item	Vha	Ha	La	Vla	\bar{x}	S.d	Interpretation
46	Provision of the basic education curriculum on business studies	8	37	98	85	1.86	0.81	La
47	Level of compliance of existing business studies textbook with the new curriculum	11	57	112	48	2.14	0.79	Ha
48	Revision of business textbooks in compliance with the new curriculum	15	45	121	47	2.12	0.81	Ha
49	The new business studies textbooks written in line with the new curriculum	19	68	89	52	2.24	0.89	Ha
50	Availability of business studies textbooks in the school library	15	21	68	124	1.68	0.89	La
51	Accessibility of library copies to business studies teachers	16	24	67	121	1.72	0.92	La
52	Accessibility of library copies to business studies students	11	23	54	140	1.58	0.86	La
53	Possession / ownership of business studies textbook by students	10	46	59	113	1.79	0.91	La
	Grand mean					1.89	0.86	Inadequate

Table 2 shows that five of the eight items meant to determine the adequacy of the provision of business studies curriculum compliant textbooks (serial numbers 46, 50 -53) had mean scores between 1.1 and 2.0 and were interpreted as lowly adequate. Three of the items (serial numbers 47-49) obtained mean scores between 2.1 and 3.0 and were interpreted as highly adequate. No. Item was either very highly adequate or very lowly adequate. The grand mean of 1.89 implies that the provision of business studies curriculum compliant textbooks is inadequate. The standard deviations show that the individual mean scores do not vary significantly from the grand mean.

Table 3
T-test results on adequacy of business studies facilities

S/n	Variable	No	\bar{x}	S.d	Df	T. Cal	T crit	Decision
1	Private	121	1.78	0.91	226	1.91	1.960	Accept H_0
	Public	107	2.01	0.94				
2	Private	121	1.32	0.71	226	0.97	1.960	Accept H_0
	Public	107	1.42	0.82				
3	Private	121	1.39	0.76	226	0.05	1.960	Accept H_0
	Public	107	1.40	0.71				
4	Private	121	1.63	0.87	226	0.62	1.960	Accept H_0
	Public	107	1.71	0.92				
5	Private	121	2.15	0.88	226	0.02	1.960	Accept H_0
	Public	107	2.15	0.84				

S/n	Variable	No	x	S.d	Df	T. Cal	T crit	Decision
6	Private	121	1.80	0.75	226	1.16	1.960	Accept h0
	Public	107	1.93	0.87				
7	Private	121	2.09	0.81	226	1.95	1.960	Accept h0
	Public	107	2.31	0.88				
8	Private	121	2.09	0.86	226	1.39	1.960	Accept h0
	Public	107	2.25	0.88				
9	Private	121	1.93	0.78	226	0.75	1.960	Accept h0
	Public	107	2.01	0.93				
10	Private	121	1.95	0.78	226	1.65	1.960	Accept h0
	Public	107	2.14	0.95				
11	Private	121	1.78	0.78	226	0.74	1.960	Accept h0
	Public	107	1.86	0.92				
12	Private	121	1.75	0.78	226	0.38	1.960	Accept h0
	Public	107	1.71	0.89				
13	Private	121	2.01	0.91	226	0.99	1.960	Accept h0
	Public	107	2.14	0.97				
14	Private	121	1.91	0.80	226	0.53	1.960	Accept h0
	Public	107	1.97	0.75				
15	Private	121	1.85	0.80	226	0.26	1.960	Accept h0
	Public	107	1.87	0.79				
16	Private	121	2.04	0.85	226	1.34	1.960	Accept h0
	Public	107	2.20	0.89				
17	Private	121	1.53	0.78	226	0.73	1.960	Accept h0
	Public	107	1.63	1.21				
18	Private	121	1.49	0.75	226	0.10	1.960	Accept h0
	Public	107	1.48	0.76				
19	Private	121	1.53	0.82	226	0.30	1.960	Accept h0
	Public	107	1.57	0.81				
20	Private	121	2.71	1.06	226	1.43	1.960	Accept h0
	Public	107	2.91	1.01				
21	Private	121	1.56	0.96	226	0.01	1.960	Accept h0
	Public	107	1.56	0.90				
22	Private	121	1.95	0.90	226	1.46	1.960	Accept h0
	Public	107	2.14	0.97				
23	Private	121	1.68	0.91	226	2.35	1.960	Reject h0
	Public	107	1.98	0.98				
24	Private	121	1.74	0.93	226	0.84	1.960	Accept h0
	Public	107	1.85	0.96				
25	Private	121	2.01	0.88	226	2.42	1.960	Reject h0
	Public	107	2.28	0.81				
26	Private	121	2.20	0.86	226	1.13	1.960	Accept h0
	Public	107	2.33	0.86				
27	Private	121	1.41	0.69	226	1.46	1.960	Accept h0
	Public	107	1.56	0.83				

S/n	Variable	No	x	S.d	Df	T. Cal	T crit	Decision
28	Private	121	1.71	0.81	226	0.50	1.960	Accept h0
	Public	107	1.76	0.86				
29	Private	121	1.88	0.85	226	0.03	1.960	Accept h0
	Public	107	1.88	0.95				
30	Private	121	1.95	0.82	226	2.27	1.960	Reject h0
	Public	107	2.20	0.82				
31	Private	121	1.71	0.73	226	1.18	1.960	Accept h0
	Public	107	1.83	0.81				
32	Private	121	2.16	0.87	226	1.73	1.960	Accept h0
	Public	107	2.37	0.93				
33	Private	121	2.13	0.90	226	1.95	1.960	Accept h0
	Public	107	2.37	0.95				
34	Private	121	2.29	0.88	226	2.27	1.960	Reject h0
	Public	107	2.57	0.99				
35	Private	121	2.42	1.05	226	2.04	1.960	Reject h0
	Public	107	2.70	0.93				
36	Private	121	2.44	1.05	226	2.35	1.960	Reject h0
	Public	107	2.76	0.99				
37	Private	121	1.46	0.74	226	1.52	1.960	Accept h0
	Public	107	1.63	0.96				
38	Private	121	1.42	0.72	226	1.61	1.960	Accept h0
	Public	107	1.60	0.93				
39	Private	121	1.62	0.83	226	1.09	1.960	Accept h0
	Public	107	1.75	0.94				
40	Private	121	1.59	0.82	226	2.19	1.960	Reject h0
	Public	107	1.85	1.00				
41	Private	121	1.64	0.85	226	1.51	1.960	Accept h0
	Public	107	1.83	1.01				
42	Private	121	1.54	0.80	226	1.37	1.960	Accept h0
	Public	107	1.70	0.90				
43	Private	121	1.76	0.79	226	1.74	1.960	Accept h0
	Public	107	1.95	0.80				
44	Private	121	1.68	0.80	226	1.83	1.960	Accept h0
	Public	107	1.88	0.86				
45	Private	121	1.77	0.89	226	1.36	1.960	Accept h0
	Public	107	1.94	0.96				
T-test value						1.23	1.960	Accept h0 ₁

Table 3 shows that thirty-eight of the forty-five items were accepted because their t-calculated values were less than the t-critical value of 1.960. The seven remaining items were rejected because their t-calculated values were greater than the t-critical value. The t-test value shows that t-calculated value is 1.23 which is less than the t-critical value. This implies that there is no significant difference between the level of adequacy of business studies facilities in public and private junior secondary schools in Ebonyi State. The null hypothesis $1(h_{01})$ is therefore accepted.

Table 4
t-test result on adequacy of curriculum compliant textbooks

S/n	Variable	No	\bar{x}	S.d	Df	T. Cal	T crit	Decision
46	Urban	85	1.82	0.78	226	0.52	1.960	Accept h_0
	Rural	143	1.88	0.82				
47	Urban	85	2.17	0.80	226	0.59	1.960	Accept h_0
	Rural	143	2.11	0.79				
48	Urban	85	2.15	0.76	226	0.43	1.960	Accept h_0
	Rural	143	2.10	0.83				
49	Urban	85	2.34	0.95	226	1.35	1.960	Accept h_0
	Rural	143	2.17	0.85				
50	Urban	85	1.68	0.90	226	0.03	1.960	Accept h_0
	Rural	143	1.67	0.89				
51	Urban	85	1.72	0.95	226	0.18	1.960	Accept h_0
	Rural	143	1.70	0.89				
52	Urban	85	1.57	0.83	226	0.09	1.960	Accept h_0
	Rural	143	1.58	0.87				
53	Urban	85	1.74	0.88	226	0.67	1.960	Accept h_0
	Rural	143	1.82	0.92				
T-test value						0.48	1.960	Accept h_0

Table 4 shows that all the items (46-53) on the provision of business studies curriculum compliant textbooks were accepted because their t- calculated values were less than the t-critical. Similarly, the t-test value shows that the t-calculated value of 0.48 is less than the t-critical. Hence, the null hypothesis 2 (h_0) is accepted; implying that there is no significant difference between the level of adequacy of the provision of business studies curriculum complaint textbooks in urban and rural junior secondary schools in Ebonyi State.

Discussion of findings

This study finds that business studies facilities are inadequate in JSS in Ebonyi State. This finding agrees with the findings of Okoroma (2006) and Nwagwu (2007) that instructional materials are in short supply in Nigerian secondary schools. The study finds that business studies compliant text-books are inadequate in JSS in Ebonyi State. This finding agrees with that of Igu (2007) that school libraries are filled with old and obsolete books that are irrelevant. The study reveals that there is no significant difference in the adequacy of business studies facilities in public and private JSS. This finding disagrees with the finding of Nwakpa (2007) that instructional materials are more adequate in private secondary schools than in public secondary schools. The study shows that there is no significant difference in the adequacy of business studies curriculum compliant textbooks in urban and rural JSS in Ebonyi State. This finding disagrees with the findings of Ani (2005) and Strong (2008) that rural areas get inadequate educational materials in contrast with their urban counterparts.

Conclusion

Material resources required for the implementation of upper basic education (JSS) business studies curriculum are inadequate in Ebonyi State. Both facilities and curriculum compliant textbooks are inadequate. This trend may not only incapacitate the teachers but also confuse them and should therefore be revised.

Recommendations

the following recommendations are made based on the findings of the study:

1. Government and other proprietors of schools should equip schools with adequate facilities required for the implementation of the upper basic education business studies curriculum.
2. Functional and qualified librarians should be employed to handle textbook and allied matters in junior secondary schools.
3. Business studies programme, at this level, should be subjected to accreditation and reaccreditation based on the adequacy of facilities and textbooks.
4. Government and other stakeholders should pool their resources together to ensure that business studies materials are adequately provided, since education for all is the responsibility of all.

References

- Ani, C.I. (2005). Teachers perception of the performance of principals in their instructional leadership roles in secondary schools in Enugu state. *Ebonyi State University Journal of Education*, 4 (2), 22-28.
- Egwu, S.D. (2009). Principals' performance of instructional leadership functions in Ebonyi State Secondary Schools. An unpublished Ph. D. Thesis, ebsu abakaiiki.
- Esene, R.A. and Okoro, J.D. (2008). Mandates of business education at the secondary school level. *Business Education Journals* vi(2), 11-26.
- Federal Republic of Nigeria (2007). *Nigeria millennium development goals 2006 report*. Abuja: the National Planning Commission.
- Hamza, A.A. (2000). *Funding of Universal Basic Education (UBE) for Nigeria*. Abuja: Federal Ministry of Education.
- Igu, C.N.C. (2007). Procurement and maintenance of school plant in secondary schools in Afikpo education zone of Ebonyi State. Unpublished M.Ed. Dissertation, Ebsu Abakaliki.
- Mustapha, M.M. (2011). Challenges of the new 9-years basic education curriculum and implementation strategies. Daily Times (February 24).
- Nwakpa, P. (2007). Instructional resources and school effectiveness in private and public secondary schools, in Ebonyi State. *Ebonyi Journal of Business Education*, 1(1), 99-104.
- Nweze, j. (2008). The universal basic education programme a new hope for education in Nigeria. *The Navigator*, 1 (9), 62-64.
- Nwagwu, I.O. (2007). Towards effective implementation of UBE a case for qualitative and quantitative teaching personnel. A paper presented at the annual conference of the curriculum organization of Nigeria at Abia State University Uturu. 19th-22nd September.
- Ocho, I.o. (2005). Universal Basic Education. In I.O. Nwagwu, R.C. Aguba, G.C.E. Mbah and P.E. Eye (eds) *issues and concerns in education and life*. Enugu: Institute of Developing Studies.

- Odigbo, C.L. (2005). Public and private secondary school dichotomy in the Nigeria education. *Nigeria Journal of Educational Administration and Planning*, 5(2), 164-172.
- Ogboru, i. (2008). Educational policy and standard: a key to a productive economy. A paper presented at the 2008 national conference on Improving Educational Standards in Nigeria at the University of Jos. 26th-30th October.
- Okafor, J.O. (2007). Strategies for improved curriculum implementation in primary schools in Anambra State. *Nigeria Journal of Education Management*, 6,191-200.
- Okello, V. and Kagoire, M.A. (1996). Makerere University Curriculum Module. Kampala: Bezatel design studies.
- Okike, A. (2006). Ebonyi citizens take science and technology world by surprise. *The Navigator*, 1(9), 12-13.
- Okoroma, N.S. (2000). The perspective of educational management planning and policy analysis. Port Harcourt: Minson publishers.
- Okoroma, n.s. (2006). Educational policies and problems of implementation in Nigeria. *Australian journal of adult learning*, 46(2), 242-263.
- Okpanku, K.O. and Uchechi, O. U. (2008). Mandate of business education at the secondary level. *Aben book of readings*, 1(8), 213-217.
- Osadolor, O. (2007). Service delivery dysfunction in basic education in Edo State: reform strategies. In *B.G. Nworgu (ed) Optimization of service delivery in the education sector, issues and strategies*. Nsukka: University Trust Publishers.
- Pattison, C. and Berkas, N., (2000). Critical issues: integrating standards into the curriculum. North Central Regional Education Laboratory.
- Saba, M.D. (2007). School facilities management in Nigeria. *Educational Digest Journal*, 10(1), 17-19.
- Starr, K. and White, S. (2008). The small rural school principalship: key challenges and cross-school responses. *Journal of Research in Education*, 23(5), 1-12.
- Strong, J.H. (2006). A position in transition. *National Association of School Principals*, 67(5), 32-23.
- Ulifun, E.E. (1986). Business education: a utility education in a developing economy. *Business Journal*, 1(1), 135-142.
- Universal Basic Education Commission (2006). *40 frequently asked questions (FAQS) on Universal Basic Education (UBE) programme*. Abuja: Office of UBEC Executive Secretary.

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Editor's Note: This paper focuses on theoretical and practical aspects of discourse in distance learning. To quote from this paper, "As dialogue increases, transactional distance decreases. It is not location that determines the effect of instruction, rather the discourse between student and instructor." Interaction goes beyond stimulus-response-reward; social and personal dimensions expand the opportunities for involvement, engagement, and learning.

Effects of electronic learning on EFL academic discourse

Mohammad reza Sadeghi
Iran

Abstract

Discourse is widely accepted as essential for learning. The challenge of distance education is to overcome the transactional distance through provision of appropriate opportunities for discourse. Understanding the role of discourse in learning and how learning environments may be designed to provide the appropriate forms of discourse is important for effective application of emerging technologies in education. The purpose of this paper is to draw conclusions regarding the importance of discourse to evaluation. It briefly reviews the types of discourse that have been proposed for distance education, the importance of evaluation of distance learning environments that have been designed for interactive learning. While we are not able to ascertain which type of discourse is most important to students in distance education, it is the aim of this paper to go few steps further to clarify the issue.

Keywords: EFL education, discourse types, design of discourse, electronic learning.

Introduction

Kearsley's (1995) list of eight questions related to discourse, the answer to which are critical to our development of effective distance education programs or evaluation of current programs is still open to be answered. These questions related to the effect of frequency of discourse; the type of learners, subject matter, and learning objectives for which discourse is most critical and the effect of discourse on learners satisfaction. Furthermore, there are some other questions related to cost, time requirements and other workload implications are critical in an expanding era of distance education. Unfortunately, these questions largely remain unanswered near fifteen years after Kearsley posed them to the community or distance education researchers.

This means that we have lots of research questions to be answered. Obviously, the search for single dimension solutions that generalize to the many diverse contexts of distance education is likely unrealistic quest.

Each country, region, institution, and user group will develop unique cultural practices and expectations related to their needs for and use of discourse. This is not to say that all applications are equally effective or efficient. Too much of our practice in distance education as Anderson (2000) argues, is not "evidence based," and our actions and instructional designs are often grounded on untested assumptions about the value of modes of discourse (or lack thereof). Thus, the research opportunities that focus on discourse in all its forms are boundless, yet critically important.

History of distance education in the world

Understanding how an activity has started and developed frequently gives a much greater insight into why things are as they are. Plato said that "necessity is the mother of invention".

Understanding the history of distance education is valuable in that how necessities have changed and triggered other inventions in time and how these inventions have affected the instructional science and its delivery methods. Distance education has been around over almost 200 years! The first distance education was provided through printed and written correspondence by mail. According to Moore (1990), distance education, referred to in Moore's writing as correspondence study, began in the late 1800's. Correspondence study was developed in Germany by two researchers named Charles Toussaint and Gustav Langenscheidt, who were both language teachers in Berlin. Since the early 1900's, distance education has been incorporated into the practices of many institutions, as has the traveling of faculty to meet students off campus to conduct educational instruction. According to Meyer (2002), in order to help alleviate the demands of travel for faculty and students, institutions began utilizing available technologies, such as audio connections (i.e. telephones), videotapes, and television, to conduct distance education efforts. These types of delivery methods and media continued to be used, as distance education began to grow as a form of education. Beginning in the 1980's, satellite telecommunications used to transmit broadcasting of lectures and instruction to off-campus locations became a popular way to conduct distance education. From the late 1980's to the 1990's, microwave-based interactive video was utilized, and this method of educational delivery was used until land-based interactive video was developed and used in the late 1990's. When the Internet and the World Wide Web became available, "a growing comprehension that education need not be site- or time-bound" began to develop throughout university and college settings (Chaney, 2006).

Discourse and transactional distance

The application of technology in distance education opens the door to new understandings of distance. Where the distance in distance education has been widely understood as a matter of geography, changing demographics in higher education are resulting in more students having commitments that may interfere with attendance at face-to-face classes and are taking advantage of opportunities to study part or all of courses and programs online or by other means typically associated with distance education. The theory of transactional distance appeared as early as 1972 and identified the distance in distance education as not merely a matter of geographic separation but a pedagogical concept addressing the psychological and communications space that separates learner and teacher (Moore, 1993). Such separation exists even within the face-to-face classroom. Teacher immediacy, the "perceived physical and/or psychological closeness between people" (Christophel, 1990: 325), encompasses such behaviours as smiling, appearing relaxed, and using humour, and has been found to modify motivation which, in turn, affects learning. [Saba and Shearer \(1994\)](#), conclude that distance is not determined geographically, but by the variety of transactions that occur between the learner and teacher. This continuum challenges the idea of traditional versus distance education. As dialogue increases, transactional distance decreases. It is not location that determines the effect of instruction, rather the discourse between student and instructor.

Moore (1993) describes the extent of transactional distance as being a function of three variables: dialogue, structure and learner autonomy. Dialogue refers to purposeful discourses towards improved understanding by the learner and its extent and nature depend on the educational philosophy of course designers, personalities of teacher and learner, subject matter and environmental factors, especially but not only, the communications medium, which may be manipulated to vary transactional distance. Structure represents the elements of course design that support delivery in ways that are more or less flexible to meet individual learner needs. It is affected by the media used and by the educational philosophy of course designers, personalities of learners and institutional requirements. Depending upon the extent of dialogue and structural flexibility available in a distance education course, the transactional distance will be more or less.

Low transactional distance courses provide clear directions and guidance through dialogue with an instructor within an open structure designed to support such discourses. Courses with higher transactional distance provide guidance through their tight structure with limited dialogue. The greater the structure and lower the dialogue, the more autonomy a learner must exercise in order to successfully negotiate the course.

Course design should aim to overcome transactional distance by a careful balance of structure and dialogue to meet the needs of learner for dealing with the course content. This is typically accomplished through design of the structure and selection of the media. Learner autonomy is the extent to which the learner, rather than the instructor, determines goals, learning experiences and evaluation of the experience. As it was mentioned above learners vary. Some prefer high dialogue and low structure; others prefer low dialogue and high structure, which they navigate according to their own purposes. Distance education courses can be classified according to the degree of autonomy permitted. For example the first type of students who are identified as independent or self-directed learners, are not actually tied to their university's learning facilities and can manage with low dialogue and little structure, but the third type that is degree seekers who are less autonomous learners, tend to prefer more dialogue and structure while others prefer informal structure with high dialogue. Moore argues that the introduction of teleconferencing, including computer-mediated communication, to distance education permits learner-learner discourse that had been impossible previously and thereby offers the opportunity to reduce transactional distance while at the same time increasing the autonomy of learners.

Albion and Ertmer, (2004) report that a significant meta-analytical study of research comparing distance education and face-to-face education conducted by Zhao, Lei, Yan, Lai, & Tan (2005) found that, different distance education programs exhibit similar variations to what may be found among face-to-face classes. Discourse with peers and instructors is the key to effective distance education, with high instructor involvement being particularly beneficial and the inclusion of face-to-face discourse and a mix of synchronous and asynchronous discourse also having a positive effect. Live human instructors, rather than materials driven solely by computer, are needed for best results. The right mix of human and technology is beneficial with inclusion of some face-to-face discourse, where possible, or use of a substitute such as video to reduce the apparent distance. This research has much to tell about how to design more effective distance learning experiences. A central theme is the importance of discourse to the learning experience.

The importance of discourse to learning is not a new discovery. Its importance in educational design, regardless of underlying learning theory, has been widely recognized and it is "widely cited as the defining characteristic of computing media" (Swan, 2002: 4) especially in relation to learning. Moore (1989) described three forms of discourse in distance education: discourse between students and teachers, discourse between students, and the discourse of students with content. He noted that discourse of learners with content is a defining characteristic of education because learning cannot occur in the absence of such discourse. Learner discourse with an instructor is often regarded as essential or highly desirable because an instructor can contribute a variety of functions that facilitate learning. Moore noted that learner discourse with other learners was a comparatively new addition to distance education, although it was often used in face-to-face classes for reasons such as convenience and economy that had little to do with learners' needs. New technologies, especially the Internet, have greatly increased the range of possibilities for all forms of discourse particularly learner-learner discourse at a distance and distance educators need to plan carefully for the appropriate mix among all forms of discourse.

Anderson and Garrison (1998) have expanded the discussion on discourse to include three other forms of discourse: teacher-teacher, student-student, and content-content (see Fig. 1).

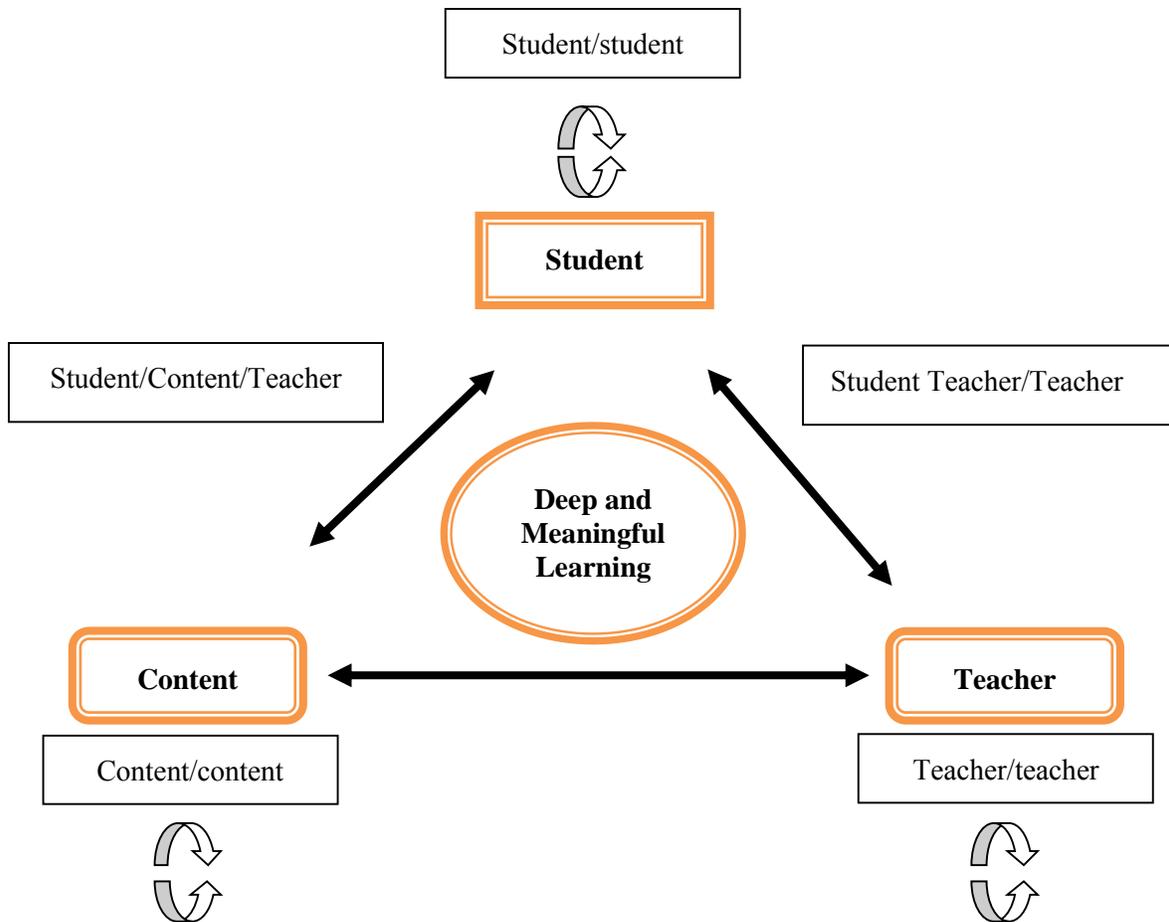


Fig.1. Modes of discourse in distance education.

From "Learning in a Networked World: New Rules and Responsibilities.

T. Anderson and D. R. Garrison, 1998, in C. Gibson (Ed.), *Distance Learners in Higher Education* Madison, WI: Atwood Publishing, 1998.

Harkening back to Dewey’s reminder that education takes place within an existing social and environmental context, it should be noted that Fig. 1 simplifies real life by omitting the larger sphere of discourse that exists outside the formal education. Discourses between students and teachers on the one hand, and their families, workplaces, and communities on the other hand, dramatically influence the context in which formal education takes place. Burnham and Walden (1997) refer to discourses of this kind as “learner-environment discourses.” These discourses are conditioned by broader societal norms and expectations related to gender, age, social interest and a variety of other sources of social status. They are very complex, often idiosyncratic, and generally lie beyond the scope of this paper. However, they cannot be ignored when situating this discourse model in any real situation.

Major concern to both educators and administrators are the high workloads and attendant costs that seem to be associated with discourse. From an administration perspective, Daniel and Marquis (1988: 342) noted that the costs of human discourse “tend to increase in direct proportion to the number of students”. Berge and Muilenburg (2000) report survey results that identify teacher concern about time requirements as the largest barrier to adopting networked forms of distance teaching. Schifter (2000) found that the related issue of lack of technical support provided by the institution and concern about faculty overload were top inhibiting factors for faculty members, whether they participated in distance education or not. Lesh (2000) and

Hislop (2000) found that once teachers become experienced with both the course content and the delivery media, the time requirements of Web-based courses and courses delivered face to face do not differ significantly. Rogers, (1995) argues that Discourse must provide “relative advantage” to teachers who have become accustomed to a system that supports temporal restriction on teacher-student discourse.

Findings

Factor analysis was used to answer the main question of the research: "what is the most appropriate model for interaction-effectiveness in Iranian distance education system?"

Table 3
Investigation of coefficients and significance status of cc indices indicators in Iranian distance education system

interaction-effectiveness indicates in distance education system	Path coefficients			Significance level
	Non-standardized	standardized	T significance	
Technical equipment and support	13/0	22/0	17/3	0/0001
Educational equipment and support	07/4	34/0	06/3	
Web-site development	17/0	47/0	56/3	
Visual-audio educational material	63/0	73/0	65/7	
Tele-conference	76/0	66/0	97/7	
Technical supports	64/0	65/0	69/5	
Holding face-to-face classes	76/0	65/0	67/6	
Visual-audio educational material	/580	64/0	18/7	
Interactive multimedia electronic material	48/0	52/0	76/5	
Implementation of learning management system	27/0	38/0	76/4	

According to Table 1, the results of analysis of measurement model of parameters have standardized and non-standardized high path coefficients (factor loadings) and are good determinants for interaction-effectiveness considering t coefficients.

Table 2
Fitting indices of factor analysis for interaction-effectiveness in distance education system

Indices	X-squared	Degree of freedom	P-Value	RMSEA	GFI
Fitting values	41/673	312	000/0	086/0	97/0

Results of table 2 show that the factor analysis model of the present research has a good fitting. In other words, considering significance level $\alpha \leq 0.05$, and good fitness of fitting indices GFI and RMSEA, this model can be used for calculation of interaction-effectiveness in Iranian distance education system.

Conclusion

The discourse phenomenon in a distance and E-education setting is intertwined with many factors in an institutional setting. Therefore, in order to understand this phenomenon in distance education courses better, an investigation into this issue with a bigger picture in mind is needed.

The discourse issue has never been an isolated issue which only matters between students and educators. It actually related to the whole components of an institution. Cox (2005) applies the institutional theory to higher education institutions and concludes that six basic components underlay the institutions' capacity of offering distance education courses. The six basic components are Administrative commitment (allocating resources), student support services (registration, advising, providing access), Full-time online coordinator (assisting course development and online teaching issues), Internal/External financial and technology resources (computers, online course management system), Online professional development (developing faculty online knowledge), and Adequate faculty participation (enough innovators supporting online education). From our study results, we can draw the conclusion that the design of a distance education course or program in a large degree related to the amount of student discourses occurring in a course. For the courses or programs that encouraged student discourse and counted it as part of the evaluation of student performance, it was natural to see more student discourses. Instructors play an important role in this respect. John Cowan, a renowned professor for his work in fostering learner-centered courses in U.K. Open University, suggested the instructors to count the issues they value into part of the grade (Lebaron and Miller, 2005). For example, if an instructor values student discourse, then he or she needs to state in the syllabus that student discourse will count for (x) amount of the grade. If not, it is easy to let students complete the courses without interacting with their course providers, educators and other students.

However, in order to add the six basic components supporting distance education mentioned earlier, instructors need tremendous assistance from the administrators. The administrators need to enlist the help of financial and technology technicians, teachers' training staff, and a team of online program coordinators in order to provide a distance course successfully. In fact, all people affected by distance education programs should be responsible in improving the quality of the courses. Drawing from the successful experiences of Andrew and Young, the program and curriculum design largely affected the amount of student discourse in a distance education course. The design which clearly imbeds the component of promoting interactive activities has a better chance to increase students' satisfaction with the courses.

Validating the efficacy of discourse in distance education environments is not as cut-and-dried a process as one might think. Despite extensive research supporting the impact of discourse, there are also many unanswered questions about the value of each kind of discourse as they regard both traditional distance education programs and online programs.

References

- 1-Albion, P. R. & Ertmer, P. A. (2004). Online courses: Models and strategies for increasing discourse. Paper presented at the Tenth Australian World Wide Web Conference. Retrieved October 22, 2007, from <http://ausweb.scu.edu.au/aw04/papers/refereed/albion/index.html>
- 2-Anderson (2003) Modes of Discourse in Distance Education: recent Development and research Questions. In Moore, M.G. and Anderson G. W. (Eds.) Hand Book of Distance Education, Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- 3-Anderson, T. & Garrison, D. R. (1998). Learning in a networked world: New roles and responsibilities. In C. Gibson (Ed.), Distance learners in higher education. Madison, WI. : Atwood Publishing.

- 4-Berge, Z., & Muilenburg, L. (2000). Barriers to distance education as perceived by managers and administrators: Results of a survey. In M. Grey (Ed.), *Distance Learning Administration Annual 2000*.
- 5-Burnham, B., & Walden, B. (1997). Discourses in distance education: A report from the other side. In *Proceedings of the Adult Education Research Conference, Oklahoma State University*. Available: <http://www.edst.educ.ubc.ca/aerc/1997/97burnham.html>
- 6-Chaney, B. H. (2006). History, theory and quality indicators of distance education: A literature review. Retrieved from <http://ohi.tamu.edu/distanced.pdf>
- 7-Christophel, D. (1990). The relationship among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39, 292-306.
- 8-Daniel, J., & Marquis, C. (1988). Discourse and independence: Getting the mix right. In D. Sewart, D. Keegan, & B. Holmberg (Eds.), *Distance education: International perspectives*. (pp. 339–359). London: Routledge.
- 9-Hislop, G. (2000). Instructor time for online learning. In *Proceedings of the Sixth Asynchronous Learning Conference*.
- 10-Kearsley, G. (1995). The nature and values of discourse in distance education. In *Third Distance Education Research Symposium*. University Park, PA: American Center for the Study of Distance Education.
- 11-Lesh, S. (2000, November). Asynchronous versus synchronous learning: A comparative investigation of the effectiveness of learner achievement and faculty time demands. Cambridge: Cambridge University Press.
- 12-Moore, M. G. (1989). Three types of discourse. *American Journal of Distance Education*, 3(2), 1-6.
- 13-Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical Principles of Distance Education* (pp. 22-38). London: Routledge.
- 14-Rogers, E. (1995). *Diffusion of innovations* (4th ed.). New York: Free Press.
- 15-Saba, F. & Shearer, P. (1994) *Distance in Education*: In David H. Jonassen (Ed.) *Handbook of research for educational communications and technology*. New York: Macmillan.
- 16-Swan, K. (2002). Learning effectiveness online: what the research tells us. In J. Bourne & J. Moore (Eds.), *Elements of Quality Online Education: Practice and Direction* (pp. 13-46). Needham, MA: Sloan Consortium.
- 17-Zhao, Y., Lei, J., Yan, B., Lai, C., & Tan, H. S. (2005). What Makes the Difference? A Practical Analysis of Research on the Effectiveness of Distance Education. *Teachers College Record*, 107(8), 1836-1884.

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Editor's Note: This is part of a larger question about factors that influence the effectiveness of a particular teacher for a specific individual. What similarities and differences significant for learning. This includes, among other things, personality, cultural background, learning styles, and multiple intelligences. This study explores similarity of multiple intelligences and its impact on learning.

Effect of the similarity between learners' and teachers' intelligences in learning outcomes

Malahat Yousefzadeh

Iran

Abstract

The purpose of this study is to investigate whether similarity between students' and teachers' *multiple intelligences* affect student learning outcome. The participants in this study were 100 students and five teachers from a guidance school in Ardabil. Homogenous students were selected on the basis of their scores in the last year. The students were selected from five classes. By using the Test Your Seven Kinds of Smart (Armstrong 1993) each student's dominant intelligence(s) was/were identified. Then the participants in each class were divided into two groups in terms of their multiple intelligences; participants whose intelligences were similar to their teachers were called similar intelligence group and those participants whose intelligences were different from their teachers were called non-similar group. T-test was used to compare the overall performances of two groups in each class in order to determine the effect of similarity of teachers' and students' intelligence on learning outcomes.

The findings of this research demonstrated that there were significant differences between similar and non-similar groups in their learning outcomes. This study showed not only considering students' multiple intelligences, but also it's matching with teachers' multiple intelligences are important in improving their learning. Also, this study has the possibility of changing hiring of teachers.

Keywords: multiple intelligences, similar intelligences, non similar intelligences, learning outcomes

Introduction

All learners are endowed with different mind sets that they employ while performing various activities in their daily lives. These learning styles or learner strategies are believed by language pedagogues to be essential in deciding the success or failure of language learning (Reid, 1987; Oxford, 1993; Chamot, 2004; DeCapua & Wintergerst, 2005 as cited in Kim, 2009).

Gardner (1983) stated that each person possesses at least seven basic intelligences including linguistic, logical/mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal intelligences. Armstrong (2009, p. 6) described these intelligences as follows:

Linguistic/verbal intelligence: The ability to use language and communicate with words.

Logical/mathematical intelligence: The ability to think and use numbers effectively.

Spatial/visual intelligence: The ability to think and be sensitive to colour, line, shape, space, and the world around us.

Bodily-kinesthetic intelligence: The ability to use body to solve problems and make ideas and emotions.

Musical intelligence: The ability to compose or perceive music well. Interpersonal intelligence: The ability to communicate and work with others.

Intrapersonal intelligence: The ability to self-assess and self-analyze one's behavior.

Statement of the problem

Noble (2004: 205) claimed that one of the greatest challenges for teachers today is to choose teachers which effectively can help to meet the needs of diverse intelligences. In an ideal world, every student would learn the same content in exactly the same way. Teachers could teach a lesson once and all students would learn and understand the concept before moving on to the next topic of the day. Unfortunately, students are not like this; rather, each student has their own preferred way of learning. Therefore, it is increasingly important for educators to differentiate their classroom instruction using different intelligence teachers. Some schools do this by choosing teachers with similar intelligences to students'.

Purpose of the study

The 'traditional' school administrator used to send a teacher to a group of students without considering how his or her intelligence can affect students learning with different intelligences. And also the traditional classroom tends to treat students as a homogeneous group, with the teacher presenting the same strategy to all students at the same time, and expecting the same answers to be produced within similar time limits. This study will attempt to illustrate that using MI is an effective way to differentiate learning opportunities in a secondary classroom.

The need for the study is strongly felt to individualize the Training Program for teachers according to their strong areas of Multiple Intelligence help trainee teachers to enhance effectiveness of teaching their special subjects by optimizing their strong areas of Multiple Intelligence, be of assistance to educational managers to choose the right candidate according to his strong areas of Multiple Intelligence, prepare an effective teacher profile for teachers, Help From service teachers to enhance their teaching effectiveness by optimizing areas of strong

Multiple Intelligences and seek ways to develop relatively weaker areas of Multiple Intelligence. According to multiple intelligences theory, schools should employ various approaches to observe students' problem-solving skills. They should also assess the students' current level from different angles.

Review of the literature

Teachers are faced with the challenge of teaching students with a wide range of intelligences. An awareness of multiple-intelligence theory has stimulated teachers to find more ways of helping all students in their classes. The theory of MIs (multiple intelligences) has always been a controversial issue in learning, and there have been many different views about the relationship between MIs and learning. Borek (2003) suggested that having a MI-based classroom can be an appropriate way for students to do their best and develop their own ways of learning. Torresan (2007) suggested that intelligences can be activated by various stimuli; so many different learning styles may be used as beneficial stimuli to nurture the different intelligences. According to Gardner (1993), one of the most important purposes of schools is to develop multiple intelligences, helping people reach vocational goals that are appropriate to their particular spectrum of intelligences. Based on MI theory, the challenge in education is for teachers to create learning environments that foster the development of all eight intelligences.

Balanced instructional presentations that encourage addressing the multiple intelligences benefit all learners and expose students to the appropriate means through by which they can strengthen their underutilized intelligences. One solution to this challenge is to implement differentiated instruction in the classroom. Differentiated instruction accommodates the diverse learning needs of the students by hiring teachers whose intelligences correspond with students' intelligences.

Khalaf Ibnian and Hadban (2013) mentioned in the second language classroom it is possible to motivate learners by activating multiple ways of meaning-making through the use of tasks relating to the different intelligences.

Similarity and attraction

Research has revealed that people prefer to affiliate with those who share similar attitudes, personalities, physical attributes, and a host of other characteristics compared to others who do not. The studies have indicated that the more similar someone is to another person, the more he/she will tend to like that person (Buss, 1985). Byrne's (1971) similarity attraction paradigm suggests that individuals gravitate toward others who are more like themselves.

Much research has done on the relationship between similarity and attraction, but have not put much effort into researching that are about how similarity of intelligence traits relates to attraction. In summary similarity-attraction theory attempts to explain and predict interpersonal liking by asserting that people are attracted to others who are similar to themselves.

Match and mismatch between teacher and students' strategies

By matching, we mean matching how we teach to how students best learn. If every student is unique, then no single teaching methodology will be equally effective for every student. Reid (1995) noted that "matching teaching style and learning style gives all students an equal chance in the classroom and builds student self-awareness" (p. 43). Reid (1987) hypothesizes that a match between teacher's teaching style and student's learning style could result in better achievement, equal educational chances and positive attitude towards learning. Stebbins (1995) suggests that a mismatch between the teaching and learning styles could have a negative impact on the students' attitude and thus learning process. Moreover, matching learning and teaching styles improves the students' attitudes, behavior, motivation and accordingly their learning.

Research Questions

Does the similarity of teachers' MI and students' MI affect the achievement of third grade students in English class?

Does the similarity of teachers' MI and students' MI affect the achievement of third grade students in Math class?

Does the similarity of teachers' MI and students' MI affect the achievement of third grade students in History class?

Does the similarity of teachers' MI and students' MI affect the achievement of third grade students in science class?

Does the similarity of teachers' MI and students' MI affect the achievement of third grade students in Geography class?

Null Hypotheses

1. The similarity of teachers' MI and students' MI doesn't affect on the achievement of third grade students in English class?
2. The similarity of teachers' MI and students' MI doesn't affect on the achievement of third grade students in Math class?
3. The similarity of teachers' MI and students' MI doesn't affect on the achievement of third grade students in History class?

4. The similarity of teachers' MI and students' MI doesn't affect on the achievement of third grade students in Farsi class?
5. The similarity of teachers' MI and students' MI doesn't affect the achievement of third grade students in Geography class?

Methodology

Participants

The sample for the study includes 100 female students and 5 teachers from a guidance school in Ardabil. The participants in each class divided into two groups according to their type of intelligences. The group whose intelligence were similar to their teacher's intelligence was called Similar Intelligence group (hereafter this group is abbreviated as SI group) and the group whose intelligence were different from their teacher's intelligence was called Non-Similar Intelligence group (hereafter this group is abbreviated as NSI group). This division did in each class. The school system grouped the students and teachers into classes before the beginning of the academic year. The students were grouped on the basis of their scores in last year, students of each class were homogenous. Each class included 20 students. The advantages of study lies in their ability to collect data from a large sample. The research hypothesis to be tested in the current research is that students have similar intelligences which may be the same as those of their teachers and which may impact on their learning outcome.

This also led to a random selection of the teachers who are teaching different subjects.

Procedure

Using the Multiple Intelligences Survey, adapted from the book *Seven Kinds of Smart* (Armstrong 1993), the researcher collected data about individual students and their intelligence profiles. The MI questionnaire translated into Farsi from English. The research started in October 2013 and finished in January 2013.

1391. It took nearly four months. The duration of research was one term. In this study there is not a direct treatment during the study period. Just indirectly and without special treatment, the effect of similarity and non-similarity of intelligences will be considered. Teachers who participated in this study were randomly selected. They were English, Geography, History, Math, Science teachers. Multiple intelligences questionnaires were applied to the both teachers and students. It was found that, dominant intelligence of English teacher was the bodily kinesthetic intelligence. In her class, 5 students had bodily-kinesthetic intelligence and 15 students had other types of intelligences. Science teacher's dominant intelligence was logical/mathematical intelligence. In this class 10 students had similar intelligence to their teacher's and 10 students had other types of intelligences. Dominant intelligence of Geography teacher was spatial-visual. In Geography class 5 students had similar intelligence to their teacher's and the other 15 had different intelligences from their teacher's. Dominant intelligence of History teacher was interpersonal. In History class 8 student's dominant intelligences were interpersonal and 12 had other types of intelligences. And finally Math teacher's dominant intelligence was intrapersonal. In her Class 7 students' dominant intelligence was interpersonal intelligence, others had different intelligence from their teacher's. At the end of the course, students were given the same 50 items vocabulary test to determine any increase or decrease in students' learning outcomes when compared with their test before the course started.

Data Analysis

In this study, the statistical techniques such as mean (\bar{x}), standard deviation (Std. Dev.) and the t-test were used in the analysis of the data. The p value was held at 0.05. Significance level was

determined by taking p values into consideration so that $p > .05$ meant there was not a meaningful difference and $p < .05$ meant there was a meaningful difference. Independent t-test was appropriate for this study as it allowed the researcher to determine the existence of differences between SI group and NSI group in their learning outcomes. To provide a statistical analysis in order to answer the research questions, the collected data from posttest, were submitted to statistical analysis. The analysis consisted of an independent t-test to compare the overall performances of two groups in order to see the effect of similarity of students'-teacher's MI on learning.

Analysis of Hypothesis 1

The first hypothesis of the study was “the similarity of teachers’ MI and students’ MI doesn’t affect achievement of third grade students in an English class”.

The accounted t-value between the average scores of the two groups is to (18) = 0.028. The data obtained are statistically significant in 0.05 level, therefore the first null hypothesis was rejected.

Table 1
Means and Standard deviation obtained in the final term test of English class

	N	Mean	Std. Deviation
Experimental group (SI)	5	17	0.91
Control group (NSI)	15	15.13	1.47

Table (1) shows group statistics. From this we can see that $\bar{x}=17$ and $SD=0.91$ (SI group), and $\bar{X}=15.13$ and $SD=1.47$ (NSI group) and the difference between two groups is statistically significant ($t=0.028$).

Analysis of Hypothesis 2

The second hypothesis of the study was “the similarity of teachers’ MI and students’ MI doesn’t affect achievement of third grade students in a Math class”.

The accounted t-value between the average scores of the two groups is to (18) = 0.14. The data obtained are not statistically significant in 0.05 level.

Table 2
Means and Standard deviation obtained in the final term test of Math class

	N	Mean	SD
Experimental group (SI)	7	16.50	1.55
Control group (NSI)	13	15	2.26

Table (2) shows group statistics. From this we can see that $\bar{x}=16.50$ and $SD=1.55$ (SI group), and $\bar{x}=15$ and $SD=2.26$ (NSI group) and the difference between two groups is not statistically significant ($t=0.14$), therefore the second null hypothesis was supported.

Analysis of Hypothesis 3

The third hypothesis of the study was “the similarity of teachers’ MI and students’ MI doesn’t affect achievement of third grade students in a History class”.

The accounted t-value between the average scores of the two groups is to (18) = 0.012. The data obtained are statistically significant in 0.05 level.

Table 3
Means and Standard deviation obtained in the final term test of History class

	N	Mean	SD
Experimental group (SI)	5	16.80	0.75
Control group (NSI)	15	14.76	1.55

Table (3) shows group statistics. From this we can see that $\bar{x}=16.80$ and $SD=0.75$ (SI group), and $\bar{X}=14.76$ and $SD=1.55$ (NSI group) and the difference is statistically significant ($t=0.012$), therefore the third null hypothesis was rejected.

Analysis of the Hypothesis 4

The fourth hypothesis of the study was “the similarity of teachers’ MI and students’ MI doesn’t affect achievement of third grade students in a Science class”.

The accounted t-value between the average scores of the two groups is to (18) = 0.0018. The data obtained are statistically significant in 0.05 level.

Table 4
Means and Standard deviation obtained in the final term test of Science class

	N	Mean	SD
Experimental group (SI)	8	17.80	1.38
Control group (NSI)	12	15.50	1.44

Table (4) shows group statistics. From this we can see that $\bar{x}=17.80$ and $SD=1.38$ (SI group), and $\bar{X}=15.50$ and $SD=1.44$ (NSI group) and the difference is very statistically significant ($t=0.0018$), therefore the fourth null hypothesis was rejected.

Analysis of Hypothesis 5

The fifth hypothesis of the study was “the similarity of teachers’ MI and students’ MI doesn’t affect achievement of third grade students in a Geography class”.

The accounted t-value between the average scores of the two groups is to (18) = 0.016. The data obtained are statistically significant in 0.05 level.

Table 5
Means and Standard deviation obtained in the final term test of Geography class

	N	Mean	SD
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Experimental group (SI)	10	17.40	2.72
Control group (NSI)	10	14.60	1.96

Table (5) shows group statistics. From this we can see that $\bar{x}=17.40$ and $SD=2.72$ (SI group), and $\bar{X}=14.60$ and $SD=1.96$ (NSI group) and the difference is statistically significant ($t=0.016$), therefore the fifth null hypothesis was rejected.

To sum up, the findings indicated that both similar and non similar groups in each class were, in the pre-test, almost homogeneous in terms of their scores in their last year, whereas in the post-test all the similar groups (SI) except similar group of Math class had a better performance than non similar group (NSI).

Results

The results further revealed that performance of those students whose MI is not similar to the MI of their teachers failed, while performance of those students whose MI similar to the MI of their teachers improved. This indicates that a match between the teacher's and students' MI could have impacted the achievement level as operationalized through the one term course grades. The finding does, however, give some indication that similar teachers' and students' MI could be considered as one positive factor to consider in learning. Also finding shows there is no match between the learning and the teaching styles which may impact achievement negatively. This is considered an important finding which has implications for the teaching/learning situation in classrooms. This study showed that the theory of multiple intelligences may have significant implications for instruction in classrooms. Teachers who plan and organize instruction around the learners' MI and emphasizing special strengths, may unlock the full learning potential of their students. The benefits of implementation of the MI theory in daily instruction relate to learning outcome and students' motivation. The teachers can recognize dominant intelligences in both himself/herself and the students. The teacher should utilize his/her own intelligence to guide students in their learning and encourage their strengths. The teacher should constantly stimulate students' dominant intelligences and multiple intelligences. Teachers should first evaluate their own intelligence before teaching, and use their dominant intelligence in planning materials and lesson plans. They should also keep track of student performances with observations and written records. This can help to assess each student's intelligence and provide support accordingly. To this end, the implementation of the MI theory in the English language teaching offers a better understanding of students' learning preferences and a greater appreciation of their strengths. Students are likely to become more engaged in learning as they use learning modules that match their intelligence strengths that, in addition, increase students' engagement and success in learning. Generally speaking, implementation of the MI theory into the classroom provides numerous opportunities for students to use and develop all eight intelligences.

As teachers, the better equipped we are with a wide range of MI, the more likely we will reach students dominant in each intelligence, and the more likely we will stretch students in all intelligences. Each student has different proclivities in the various intelligences. Any single strategy may be very successful with some students, yet less successful with others. Using a range of teaching strategies opens the door to learning for all students.

References

- Armstrong, T. 1993. *7 Kinds of Smart: Identifying and developing your many intelligences*. New York: Plume, Penguin Group.
- Armstrong, T. (2009). *Multiple intelligences in the classroom*. Alexandria: Association for Supervision and Curriculum Development.
- Borek, J. (2003). Inclusion and multiple intelligences: Creating a student-centered curriculum. *The Quarterly*, 25(4), 24-28.
- Buss, D. M. (1995). Evolutionary psychology: A new paradigm for psychological science. *Psychological Inquiry*, 6, 1–30.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
- Gardner, H. (1993). *Multiple intelligences: The theory into practice*. New York: Basic Books.
- Khalaf Ibnian, S. S Hadban A. D. (2013). Implications of Multiple Intelligences Theory in ELT Field. *International Journal of Humanities and Social Science*, 3(4), 292-297.
- Kim, I. S. (2009). The relevance of Multiple Intelligences to CALL Instruction. *The Reading Matrix*, 9(1), 1–21.
- Noble, T. (2004). Integrating the revised Bloom's taxonomy with multiple intelligences: A planning tool for curriculum differentiation. *Teachers College Record*, 106(1), 1938211. Retrieved from EBSCOhost.
- Reid, J. (1987). The learning style preferences of ESL students. *TESOL Quarterly*, 21, (1), 87-111.
- Reid, J. (1995). *Learning styles in the ESL/EFL classroom*. Boston: Heinle.
- Stebbins, C. (1995). Culture-specific perceptual-learning style preferences of postsecondary students of English as a second language. In J. Reid (Ed.) *Learning styles in the ESL/EFL classroom*. (pp. 108-117). Boston: Heinle.
- Torresan, P. (2007). Intelligences and styles in language teaching: What is the difference? *Mosaic*, 8(4), 34-42.

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