Shih, JL. et al. (Eds.) (2023). Proceedings of the 31st International Conference on Computers in Education. Asia-Pacific Society for Computers in Education

Exploring the Relationship Between Students' Preferences for Teacher Authority and Learning Approaches: An Example of Student Learning Communication Theory and Computer Technology Contexts

Wen-Lung HUANG[a*]
[a]*Department of Communication, Fo Guang University, Taiwan*
*wlhuang@mail.fgu.edu.tw

Abstract: This research investigated university students majoring in Mass Communication preferences regarding teacher authority within the context of communication theory and computer technology learning and examined how these preferences were associated with learning approaches. Data were collected from 357 Taiwanese university students using two questionnaires. The results identified three distinct clusters in terms of teacher authority: passive learners (Cluster 1), blended learners (Cluster 2), and autonomous learners (Cluster 3). ANOVA results revealed significant differences in learning approaches across the three clusters. Notably, blended learners exhibited higher scores in deep strategy compared to passive and autonomous learners, while both blended learners and autonomous learners demonstrated stronger deep motivation than passive learners. Finally, passive learners displayed the lowest level of learning approaches within the context of communication theory and computer technology learning.

Keywords: teacher authority, approaches to learning, communication, computer technology

1. Introduction

Most undergraduate students majoring in Mass Communication are required to take both theory and hands-on courses (e.g., computer technology and production technology), and instead find communication theory tedious, difficult to understand, distant and abstract, and of little relevance to their daily lives, leading to limited interest in such courses (Griffin, 2012; West et al., 2010). This may lead students to adopt a passive learning attitude where they use to memorization methods to cope with theory examinations. Therefore, how to implement effective teaching methods (e.g., student-centered, and teacher-centered) to stimulate students' learning motivation and willingness for autonomous learning has always been a concern among educators. However, these teaching methods may vary significantly based on students' characteristics, and even differ according to their academic majors (Akdemir & Özçelik, 2019; Murphy et al., 2020). Therefore, it is worthwhile for mass communication educators to understand the varying levels of preference among mass communication students for both student-centered and teacher-centered pedagogies.

Teacher-centered refers to the approach where the teacher takes responsibility for imparting a significant amount of knowledge to students through a lecture-based mode, and in the teaching environment, the teacher is active while the students are passive. Contrastingly, student-centered instruction creates a learning environment where skills and understanding are actively constructed, with the teacher assuming the role of a guide and facilitator, while

students actively participate in the learning process (Mascolo, 2009; Vavrus et al., 2011; Serin, 2018). In terms of student learning roles, based on previous research shown that students' preference for student-centered pedagogy involves two aspects: autonomy and participation management, while preference for teacher-centered pedagogy comprises two aspects: dependency and teacher control (Lee et al., 2009; Lin et al., 2013).

In the student-centered pedagogy, the two factors of autonomy and participation management mean that learners tend to have autonomy in the learning process and actively participate in making decisions about course content and assessments. Nevertheless, in the teacher-centered pedagogy, the two factors of dependency and teacher control imply that students expect teachers to decide the content knowledge that needs to be taught and to decide on the instructional activities and methods for evaluating learning (Alam, 2023; Lin et al., 2013). Additionally, the student-centered approach is commonly linked to the development of self-regulated and deep learning, as well as the enhancement of critical thinking and seeking understand. On the other hand, the teacher-centered approach is frequently associated with rote memorization and passive learning (Loyens et al., 2008; Alam, 2023).

Based on the above rationale, pedagogy of student-centered versus teacher-centered may have a profound impact on how students learn. Therefore, this study aims to investigate the relationship between students' preference profile of teacher authority and their approach to learning in the context of communication theory and computer technology.

2. Literature Review

2.1 Learner-centered versus teacher-centered learning environment

In the context of mass communication learning, teachers may control not only course content (e.g., theory course) and assessment, but also the learning activities during the technology (e.g., computer technology) production procedures. Particularly in the field of journalism and mass communication education, a great deal of teaching focuses on technology skills curricula (Han & Newell, 2014; Mendenhall, 2017), such as the computer graphics, computer editing techniques and virtual production technologies. In these activities, teachers' authority may play an important role. Therefore, as we emphasize learner-centered and teacher-centered pedagogies in mass communication learning environments, it seems necessary to focus on the issue of teacher authority.

In student-centered learning, students' activities are important indicators in learning process and quality of learning product (Zohrabi et al., 2012). This pedagogical approach integrates flexible learning, experiential learning, and self-directed learning to create a student-centered classroom environment where teachers act as facilitators, considering individual needs and encouraging active participation in the learning process (Acat & Dönmez, 2009). Additionally, in a teacher-centered learning environment, educators assume a significant role in the learning process, emphasizing the use of well-prepared learning materials and objectives. This approach enables teaching students in incremental and manageable steps to achieve specific learning outcomes. It is often considered suitable for large class sizes and facilitates shorter classroom activities. It may lead to less student interaction and limited opportunities for critical thinking and innovation in teaching (Emaliana, 2017).

Hence, considering the above reasons, it is essential to investigate the differences between teacher-centered and student-centered pedagogies and ascertain students' preferences for these approaches. This enables educators to make informed decisions about course delivery, classroom management, enhancing student engagement, improving learning effectiveness, and facilitating students in achieving desired learning outcomes.

2.2 Preferences for teacher authority and approaches to learning

Several studies have revealed that students' learning attitudes are related to their preference for teacher authority (Lee et al., 2009). For example, Cornelius-White (2007) study indicated that students' preference for autonomy and participative management in student-centered

learning is strongly associated with their motivation and engagement in the learning process. On the other hand, in teacher-centered learning, student preference for dependency shows that students positively impact knowledge acquisition and reduce learner pressure and anxiety (Scheja, 2006). However, the teacher-centered approach is often associated with rote learning, memorization, and standardized testing, while student-centered learning prioritizes active student involvement in the learning process (Alam, 2023). Previous studies have revealed that adopting memorization or struggling with fragmented learning knowledge is considered surface approaches to learning in academic activities (Biggs, 1978; Marton & Säljö, 1976). In contrast, seeking to understand the learning content thoroughly and applying critical thinking to reflect on its meaning are driven by internal motivations and involve more sophisticated strategies, which are considered deep approaches to learning (Asikainen & Gijbels, 2017).

However, whether students' preferences profile of student-centered or teacher-centered instruction are related to their approaches to learning has rarely been explored in previous research. As a result, the current study seeks to investigate the potential correlation between students' preference profile of teacher authority and their approaches to learning in the context of communication theory and computer technology learning. With that in mind, this study had two main aims:

1. To identify the preference profile of Taiwanese university students for teacher authority within the context of learning communication theory and computer technology.
2. To investigate the relationship between preferences for teacher authority and learning approaches in the context of communication theory and computer technology learning among university students in Taiwan.

3. Methodology

3.1 Participants

Participants in this study included 357 undergraduate students from five universities in northern, central, and southern Taiwan. All of them majored in the Department of Mass Communication. All participants completed a Chinese version of the teacher authority and approaches to learning questionnaires.

3.2 Instruments

To explore students' perspectives on teacher authority and their approaches to learning communication theory and computer technology, this study employed two questionnaires. First, the Teacher Authority (TA) questionnaire was modified from Lee, Chang, and Tsai's (2009) instrument, which has been shown to be a reliable measure of college students' perceptions of teacher authority in the context of earth science. The TA questionnaire includes four factors that assess teacher authority, namely autonomy, participatory management, dependency, and teacher control. Each factor which has detail description are presented below:

1. *Preference for autonomy assesses* the extent to which students value autonomy and the freedom to decide the content knowledge they need to acquire in the context of classrooms.
2. *Preference for participatory management* assesses the degree to which students actively engage in decision-making about learning activities and the creation of learning content and grading criteria.
3. *Preference for dependency* assesses the extent to which students favor relying on instructors for decision-making and knowledge transmission within the context of communication and computer technology learning.
4. *Preference for teacher control* evaluates students' perceptions of the extent to which teachers exert control over content and classroom activities.

The second questionnaire was the Approaches to Learning through Mass Communication (ALMC) questionnaire, modified from Lee et al.'s (2008) Approaches to

Learning through Science questionnaire., which has been shown to be a reliable measure of college students' approaches to learning in the context of science education. It included two dimensions: the deep approach, encompassing deep motives and deep strategies, and the surface approach, consisting of surface motives and surface strategies. Four factors are described below:

1. *Deep motive* refers *to* students' intrinsic motivation when participating in the context of communication theory and computer technology learning, characterized by their curiosity and personal interests.
2. *Deep strategy* refers *to* students utilizing more meaningful approaches to facilitate their learning communication theory and computer technology, thereby ensuring a thorough understanding of the subject matter.
3. *Surface motive* refers *to* students' extrinsic motivation when participating in the context of communication theory and computer technology learning, encompassing goals such as achieving high grades and fulfilling parental expectations.
4. S*urface strategy* refers *to students* adopting a limited scope of learning objectives and employing rote methods to acquire knowledge in the context of communication theory and computer technology learning.

Two expert mass communication educators were invited to assess the content validity of the revised items in TA and ALMC questionnaire. Each item on the two questionnaire was presented using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

3.3 Data analysis

Three statistical analyses were employed in this study. Firstly, the study uses exploratory factor analysis to select the items which fit for the scale. Secondly, performing a cluster analysis on all participants' responses to the TA questionnaire. Subsequently, the clusters initially generated by the Ward's method were further examined using the k-means method. Finally, the study employs an analysis of variance (ANOVA) test to differentiate distinct boundaries among diverse teacher authority preference profiles, which are subsequently utilized to examine their impact on mass communication learning approaches.

4. Results and Discussion

4.1 Exploratory factor analysis of the TA questionnaires

The results by applying the exploratory factor analysis with varimax rotation revealed four factors with a total of 19 items of the students' preference of teacher authority in the context of communication and computer technology learning. These four factors explained variances are 61.29%. The Cronbach's α coefficients for four factors were 0.79, 0.84, 0.77, 0.87, and 0.88, respectively, and the overall alpha was 0.82, suggesting that these factors have high reliability in assessing students' preference profiles about teacher authority.

4.2 Exploratory factor analysis of the ALMC questionnaires

The results by applying the exploratory factor analysis with varimax rotation to assess the construct validity of the ALMC questionnaires and extract the existing factors in these research tools. These four factors with a total of 21 items explained variances are 60.56%. The Cronbach's α coefficients for five factors were 0.87, 0.87, 0.82, and 0.78, respectively and the overall alpha was 0.84, suggesting that these factors are sufficiently reliable for representing learning approaches in the context of communication theory and computer technology learning.

4.3 Identifying the mass communication students' preference profile of teacher

authority among Taiwanese university students.

A cluster analysis approach was used to characterize the different preferences of mass communication learners with respect to their perceptions of teacher authority. The results of the cluster analysis show that students' preferences for teacher authority can be categorized into three different clusters, namely Cluster 1 (Passive learners), Cluster 2 (Blended learners) and Cluster 3 (Autonomous learners). Each profile is characterized as follows:

Passive learners. The participants in this cluster scored the lowest on the dimensions of autonomy (mean 3.17, standard deviation 0.25) and dependence (mean 3.39, standard deviation 0.41) in teacher authority. This implies that students in this cluster do not possess a strong inclination to engage actively with the content of classroom learning, nor do they exhibit a strong tendency to rely on the knowledge imparted by the teacher. Hence, students within this cluster could potentially be characterized as “passive learners” who may not exhibit a significant concern about the locus of authority.

Blended learners. Blended learners’ members exhibited the highest average scores in the dimensions of autonomy (mean 4.09, standard deviation 0.40) and dependence (mean 4.25, standard deviation 0.34) within teacher authority. This suggests that students in this cluster tend to prefer engaging in classroom learning content, and they also show a strong preference for relying on the teacher to impart knowledge. Hence, students within this cluster could potentially integrate both learner-centered and teacher-centered orientations, classified as “blended learners”.

Autonomous learners. Students in autonomous learners demonstrated a higher inclination towards autonomy (mean 3.90, standard deviation 0.27) and a lower inclination towards dependence (mean 3.50, standard deviation 0.34) in their preference for teacher authority. This shows that this group of students favors a student-centered pedagogical approach, displaying a pronounced inclination to actively participate in classroom content. As a result, they can be classified as “autonomous learners”.

4.4 The relationship between students’ preference profile of teacher authority and approaches to learning

An analysis of variance (ANOVA) was conducted to determine the relationship between students' approaches to learning and different preferences for teacher authority. The results showed that there were significant differences in learning approaches among the three clusters, including deep motivation ($F = 39.61$, $p < 0.000$), deep strategies ($F = 47.65$, $p < 0.000$), surface motivation ($F = 18.27$, $p < 0.000$), and surface strategies ($F = 26.44$, $p < 0.000$). Subsequent post hoc tests were conducted using the Scheffé method to determine the significant differences among the groups. The results revealed that students in blended learners have statistically higher scores in deep strategy than those in passive learners and autonomous learners. The result implies that students in blended learners utilize deep strategies, such as comprehension and relating ideas, to form a more comprehensive view. Furthermore, students in blended learners and autonomous learners exhibited statistically higher scores in terms of deep motivation compared to those in passive learners. This observation suggests that both clusters of students possess a profound motivation, such as intrinsic interest, driving their engagement in the study of communication theory and computer technology. Besides, students in blended learners statistically scored higher on surface motivation and surface strategy than the other groups.

However, blended learners also exhibited higher scores in both deep approach and surface approach compared to the other groups. That is, students in blended learners tended to have both intrinsic and extrinsic motivations to learn communication theory and computer technology, but simultaneously, they may hold deep and surface strategies to learn communication theory and computer technology. This phenomenon suggests that mass communication students might be directed by instructors to develop critical thinking skills (Morreale et al., 2000), while also being shaped by Taiwan's exam-oriented culture, resulting in a blend of deep and surface learning strategies. Furthermore, the learning patterns of Taiwanese students are molded by the sociocultural context, wherein parental focus on

academic scores remains paramount. This influence has the potential to lead students to adopt surface motivations to engage in mass communication research, especially during exam periods (Huang et al., 2018).

Finally, it is suggested that future research could further utilize higher-order statistical methods for comprehensive inquiry, such as using structural equation modeling to explore the relationship between teacher authority and learning approaches in the context of communication theory and computer technology learning.

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