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Connecting Best Practices for Teaching Linguistically and Culturally Diverse International Students With International Student Satisfaction and Student Perceptions of Student Learning

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Abstract

This paper explores promising teaching practices for teaching linguistically and culturally-diverse international students by identifying the teaching practices that have high levels of international student satisfaction and student perceptions of learning. This study is based on the belief that the most effective teaching practices are where promising teaching practices, student satisfaction, and student perceptions of learning meet. Researchers used a mixed-methods research design that included an online-survey questionnaire, focus-group discussions, and individual interviews. All of the promising teaching practices identified as having high levels of student satisfaction have medium/high perceptions of student learning. Some of the promising teaching practices with high levels of student perceptions of learning have moderate levels of student satisfaction. Recommendations for professional practice are presented along with potential areas for further research.

Keywords: teaching, satisfaction, learning

Introduction

Colleges and universities in the U.S. and Canada are increasingly becoming ethno-culturally and linguistically diverse which is partially due to increasing enrollment of international students. Currently 1.4 million international students choose to study at Canadian and U.S. postsecondary educational institutions, which increased by 7.1 percent between 2015 and 2016 (Canadian Bureau of International Education, 2016; Institute of International Education, 2016).

Presently, campus internationalization initiatives focus primarily on external areas including education abroad and student exchange, recruiting international students, and institutional partnerships (Helms, Brajkovic, & Struthers, 2017). However, this is expected to change as more institutions are developing academic-related internationalization initiatives (e.g., international or global student-learning outcomes, related general education requirements, foreign language requirements). A growing number of institutions are increasing faculty engagement in internationalization efforts (Helms, Brajkovic, & Struthers, 2017). To do this, faculty will need to critically examine their role in campus internationalization and implement teaching strategies that address international student success factors.

Few instructors have received formal training for intercultural learning or inclusive education (Paige, & Goode, 2009). However, there are many promising teaching practices that faculty can add to their teaching repertoire, which will improve their teaching of international students and are believed to result in high levels of student learning. This article will explore the promising teaching practices for teaching linguistically and culturally-diverse international students by identifying the teaching practices that have high levels of international student satisfaction and student perceptions of learning. The authors hope that faculty who engage in these teaching

practices will become more engaged in campus internationalization and improve international student success on their campuses.

Literature Review

International Students' Satisfaction

Satisfaction among international students studying at Canadian and U.S. colleges and universities is high. A Canadian Bureau of International Education (2014) reported that 90 percent of international students studying at Canadian institutions are either very satisfied or satisfied with their educational experience. International Student Barometer (ISB) findings (i-graduate International Insight, 2017) also suggest that international students are largely satisfied with their academic experience at Canadian and American colleges and universities. Nearly nine of ten (89%) indicate that they are satisfied with the learning experience, which is slightly higher than non-North American institutions (87%) and the global ISB index (87%).

i-graduate International Insight (2017) found that the topics which American and Canadian international students scored higher than non-North American international students, in terms of student satisfaction, include: academics' English, assessment, careers advice, course content, course organization, employability, good teachers, quality lectures, laboratories, language support, learning spaces, learning support, marking criteria, multicultural environment, online library, opportunities to teach, performance feedback, physical library, size of classes, technology, topic selection, virtual learning, and work experience. It also found that the topics where non-North American international students scored higher than American and Canadian international students include expert lecturers and managing research. American and Canadian international students and non-North American international students scored the same on research. Little variance in international-student satisfaction of the learning experience was found for gender. Some areas where differences are identified include country of origin, study level, program, study time, study stage, and age. Common topics cited by more than one student type include careers advice, employability, language support, managing research, opportunities to teach, research, and work experience.

International Student Success Factors

While international-student satisfaction with their learning experiences is generally high, international students, especially those from additional language backgrounds, face challenges as they enter and move through the North-American student experience. Several academic and non-academic factors have been discovered as influencing the educational success of international students. Academic challenges include language challenges, exclusion from group discussions, culturally-related learning differences, academic support issues, and adjustment to a new educational system. International students also face a wide array of non-academic challenges. These challenges include cultural adjustment, social issues, and finances.

Academic Challenges

International students perceive language barriers, especially oral communications in English, as a major challenge (Zhang, & Zhou, 2010). Language difficulties emerge from different accents, rate of speech, and pronunciation (Wu, Garza, & Guzman, 2015). They result in international students putting in more hours than host students to complete reading, writing, and presentation

assignments (Brunton, & Jeffrey, 2014; Cruikshank, Chen, & Warren, 2012; Wang, & Byram, 2011). They also create a feeling of inequality in the classroom (Foster, & Stapleton, 2012; Kim, & Choi (2014); Valdez, 2015).

Most instructors employ some form of group work in their teaching, which requires students to have good written and verbal English skills. Students with low-language proficiency are often unable to engage in group discussions or participate in class presentations even if they have topic knowledge (Yates, & Thi Quynh Trang, 2012). This frequently results in international students sitting together and speaking their native language, which limits interaction with domestic students (Brunton, & Jeffrey, 2014; Harrison, & Peacock, 2010; Trahar, & Hyland, 2011).

International students with diverse cultural experiences may perceive the learning environment differently, especially when compared with native students (Koul, & Fisher, 2005). In North America, emphasis is placed on independent and critical thinking, problem-based learning, interpreting information, and developing and communicating knowledge. Many international students come from educational cultures where priority is given to memorizing, understanding, and reproducing information (Eaves, 2011; Elmgren, & Henriksson, 2014; Kennedy, 2002; Tavakol, & Dennick, 2010; Valiente, 2008). International students are more accustomed to listening and learning rather than speaking in class (Edwards, & Tonkin, 1990).

Joining a new academic environment is difficult for international students. For many, they have experienced large power-distance-school settings, where instructors are treated with respect and the education process is teacher-centered. In contrast, in North American institutions, teachers and students co-exist in an academic environment where they are more equally treated and the educational process is more student-centered (Hofstede, Hofstede, & Minkov, 2010). International students also report that education moves at a faster pace and instructors use teaching methods that require greater student participation (Zhai, 2002).

Many international students require academic support to be successful. Student services are designed to help students transition to, and be successful in, the North American academic culture. Some of the more common supports needed by international students include academic advising, academic integrity, learning resources (e.g., library, computer center), and verbal and written communication support. Increasingly, institutions are “reimagining and recasting” (Fisher, 2011, para 5) academic support services to make them more responsive to student’s academic, social, and emotional needs.

Non-Academic Challenges

Adjusting to a new culture is difficult. This is because it affects nearly all aspects of life, including living arrangements, community participation, socialization, communication, eating practices, and food consumption (Andrade, 2009). This can lead to culture shock. One study (Zhang, & Zhou, 2010) identified culture shock as the top challenge for international students.

International students perceive isolation and loneliness when they are studying in North America. Their ability to handle academic and social demands is strongly associated with social support (Fritz, Chin, & DeMarini, 2008; Zhang, & Goodson, 2011). Social support reduces stress, promotes positive health outcomes, and moderates the effects of stress on mental health symptoms (Rice et al., 2009). International students experience stereotypes and negative attitudes, some of which result in incidents of inequitable treatment (Smith, & Demjanenko, 2011). Findings from

one study (Charles-Toussaint & Crowson, 2010) found that American students believe that international students pose threats to their social status. This can lead to international students becoming marginalized in class or in social events.

International students are often overwhelmed by financial considerations. The main sources of dissatisfaction for international undergraduate students at U.S. institutions relate to finances (Choudaha, & Schulmann, 2014). Key among their concerns is access to internships, affordability, and availability of scholarships, followed by meal plans and housing quality.

International Student Success Factors

Higher education faculty often pursue a wide variety of teaching practices. Hattie (2009), after reviewing more than 800 meta-analyses of the factors affecting learning, concluded that most learning innovations are effective. In general, when faculty are excited about a new teaching approach, students learn at enhanced levels. The effects are often temporary, as the new pedagogy becomes regular practice. What is lacking, according to Bray (2017), is a comprehensive, validated model of how students learn. Such principles could “guide the design, implementation, and assessment of effective pedagogy across different situations” (p. 2).

Few instructors have received formal training for intercultural learning or inclusive education (Paige, & Goode, 2009). However, there are many promising teaching practices that faculty can add to their teaching repertoire, which will improve their teaching of international students and are believed to result in high levels of student learning.

An important element for teaching international students is creating an inclusive learning environment. Kinsella (1997) suggests using teaching practices that include providing increased contextual information and linguistic support, offering specific learning and study approaches, and having greater opportunities for classroom interaction and participation. Another essential component for enhancing international academic success is putting culturally-responsive teaching into practice in the classroom. Gay (2010) outlines four principles designed to help instructors bring culturally-responsive teaching into their classrooms, including developing a cultural diversity knowledge base, designing culturally-relevant curricula demonstrating cultural caring, building a learning community, and engaging in cross-cultural communication.

Differentiated instruction is used to enhance the learning experience for international students. Traditionally, differentiated instruction is used to influence learning for students with varied learning readiness, personal interests, and culturally-framed ways of knowing (Tomlinson, 2014). It seeks to maximize each learner’s experience by adjusting instructional tasks by building on student strengths (Tomlinson, 1999). It is also helpful with the teaching of international students. One study (Martin-Beltran, Guzman, & Chen, 2017) found that instructors use discourse differentiation to mediate learning opportunities among students with a wide range of language expertise. This can lead to fostering collective thinking to create a fertile context for language learning among students with diverse backgrounds.

Recently, Dimitrov and Haque (2016) developed the Intercultural Teaching Competence Model for instructors to use as a tool for reflection as they look to teach students from differing cultures. The model consists of twenty instructor competencies, which fit into three categories, including foundational skills, facilitation skills, and curriculum design skills. The model should be helpful to instructors who are looking to enhance the learning experience for international students.

The role of faculty goes beyond the classroom. For international graduate students, the academic experience is impacted by the academic supervisory relationship between faculty members and students (Curtin, Stewart, and Ostrove, 2013; Glass, Kociolek, Wongtirat, Lynch, & Cong, 2015). They depend on their supervisors to learn about academic performance standards, research assistant duties, and for advice about their academic programs. Academic faculty members also support their graduate students when they provide post-graduate employment information and assist students with post-graduation employment (Nunes, & Arthur 2013).

Many other promising teaching practices are used to enhance the learning experience of international students. These include practices that fall into these areas: academic integrity, academic skills, assessing needs, assessment, assignments, clarifying expectations, class preparation, classroom climate, communicating outside of the classroom, culturally-responsive teaching, differentiated instruction, diversity and inclusion, expectation clarification, feedback, group work, intercultural teaching competence, language proficiency, lecture design and delivery, note taking, organization, physical environment, reviewing materials, specialized terminology, student-centered teaching, study techniques, verbal communications, and visual communications.

Methods

This study examined the promising teaching practices for teaching linguistically and culturally-diverse international students by identifying the teaching practices that have high levels of international student satisfaction and student perceptions of learning at a mid-sized comprehensive public university in Canada to make recommendations regarding high impact instructional practices. The following two research questions guided the study:

What are the promising teaching practices for teaching linguistically and culturally-diverse international students that have high international student satisfaction?

What are the promising teaching practices for teaching linguistically and culturally-diverse international students that are associated with high international student perception levels of student learning?

Sample

Research participants are international students who study at a mid-sized comprehensive public university in Canada (the pseudonym, Canadian University, is used by the authors). They include students from a wide array of countries of origin, study levels, academic programs, study stages, and ages. The sample size is 3,467 international students. Pseudonyms were selected to represent the names of research participants.

Study participation included 1,056 students completing the online questionnaire, 15 students participating in a focus group, and seven students being interviewed by a member of the research team. Across all methods, a participation rate of 32 percent was achieved.

Pilot Study

A pilot study was conducted to achieve internal validity. A panel of ten international students, representative of the local institutional student profile (half were in their first year and spoke a language other than English as their first language, with the remaining students upper-level

undergraduate and graduate students), reviewed the questions used in the instruments to ensure they matched their intended use. Modifications were subsequently made to the instruments.

Data Collection

Multiple data gathering techniques were employed for this study. An online survey questionnaire was administered in February 2018 to collect information about participants' satisfaction with and learning associated with promising teaching practices for teaching linguistically and culturally diverse international students. The survey also collected a limited amount of demographic data to compare study results with literature findings. Five focus group discussions were held, which grouped students by study stage (e.g., ESL students, undergraduate students, course-based master's students, and research-based master's and doctoral students). Six individual interviews, using the focus group questions, were also conducted to ensure that participants who wanted more privacy could participate in the qualitative portion of the study.

Findings

Survey Data

Survey participants were mostly representative of international student enrollments at Canadian University regarding faculty/department of study, country of origin, gender, age, prior institution, and parents' education. The number of participating graduate students (77.91%) was overrepresented and the number of undergraduate students (17.93%) was underrepresented.

Most respondents (93.9%) reported being somewhat satisfied (28.97%), satisfied (48.29%), or very satisfied (16.64%) with their learning experiences at Canadian University.

Promising teaching practices received from respondents that were reported as satisfied or very satisfied varied from 49.7 percent to 82.9 percent. Teaching practices with the highest respondent satisfaction percentages (greater than 70%) fell into these areas: academic integrity, assessment, assignments, clarifying expectations, communicating outside of the classroom, lecture design and delivery, verbal communications, and visual communications.

Respondents indicated their perceptions of the amount of learning they received, which corresponded with each of the promising teaching practices. The promising teaching practices that respondents identified as resulting in medium or high learning levels varied from 66.11 percent to 89.32 percent. Teaching practices with the highest respondent perceptions of student learning (greater than 70%) fell into these areas: academic integrity, academic skills, assessing needs, assessment, assignments, clarifying expectations, class preparation, climate in classroom, communicating outside of the classroom, culturally-responsive teaching, differentiated instruction, diversity and inclusion, feedback, group work, language proficiency, lecture design and delivery, note-taking, reviewing material, student-centered teaching, verbal communications, and visual communications.

All of the promising teaching practices identified as having high levels of student satisfaction also have medium/high student perception levels of learning. Interestingly, 13 teaching practice areas received medium/high student perception of learning levels that did not receive satisfied/very satisfied satisfaction levels. Table 1 shows student satisfaction and student perceptions of learning for the promising teaching practices, as well as the correlation between student satisfaction and

student perceptions of learning for each of the identified teaching practices. All promising teaching practices reported a positive correlation and all correlations were significant at the 0.01 level. Fourteen correlations were reported at the .700 level or higher including assessing needs, assignments, clarifying expectations, class preparation, culturally-responsive teaching, feedback, and language proficiency.

Table 1. Student Satisfaction and Student Perceptions of Learning for Promising Teaching Practices

Promising Teaching Practice	Student Satisfaction (Satisfied/Very Satisfied)	Student Perceptions of Learning (Medium/High)	Correlation r
Academic Integrity:			
Integrates information about academic honesty in instruction to prevent plagiarism	82.90%	95.60%	.445*
Communicates what constitutes cheating and the consequences of academic dishonesty	77.80%	94.40%	.482*
Makes use of librarians to teach about academic integrity	65.70%	88%	.594*
Academic Skills:			
Encourages students to participate in campus workshops that provide academic support	67.50%	88.30%	.678*
Teaches academic skills (e.g., expressing opinions, paraphrasing and summarizing, referencing, argument structure)	69.10%	90%	.633*
Develops an outline to show students how to organize time and prioritize their work	63.10%	86.50%	.658*
Assessing Needs:			
Makes time for students to share their backgrounds during class	56%	78.20%	.743*
Gains knowledge of student backgrounds and previous educational experiences to determine their needs in the classroom	52%	75.80%	.757*
Assessment:			
Designs assessments that recognize and validate cultural differences in writing and communication styles	58.30%	84.10%	.686*
Explains assessment criteria to students so that they know how they will be evaluated	71.40%	91.40%	.582*
Uses fair assessment practices	70.80%	92.40%	.595*
Assignments:			
Assigns quick writing assignments, such as a “one minute paper” at the end of class, asking students to list anything needing further clarification	55.10%	81.60%	.730*
Collects written questions about the lecture at the end of class	49.70%	77.50%	.718*
Words instructions for assignments clearly	71.30%	92.40%	.543*
Breaks up deadlines for large projects into phases so that students can brainstorm, draft, solicit feedback, revise, and edit throughout the semester	73.60%	92.30%	.596*
Provides step-by-step instructions for assigned tasks	67.70%	92.20%	.633*
Posts assignments and readings ahead of time	76.30%	92.20%	.549*
Asks students to come to class with a written response to an assigned reading	59.80%	86.60%	.678*
Clarifying Expectations:			
Collects and makes available examples of recently completed outstanding student work so that students can see the format and standard of work expected	63.50%	84.60%	.708*
Provides students with rules for discussion, participation, and group work	67.60%	90.10%	.570*
Models how to ask questions, think critically, write good essays or reports, or read analytically by demonstrating these skills in class	63.10%	88.50%	.648*
Provides clarity on course objectives and expectations, and major concepts to be covered	72.50%	92.70%	.614*
Class Preparation:			
Encourages pre-reading of assigned readings	65.60%	88.50%	.692*
Reinforces the importance of adequate preparation	65.10%	89.80%	.641*
Assigns discussion questions as homework so students have time to prepare answers in writing	65.70%	87.20%	.703*
Climate in Classroom:			
Uses activities to encourage students to get to know each other	60.60%	84.30%	.682*
Communicates during the first-class that participation will be encouraged and welcome	69.10%	90.80%	.617*
Respects students who prefer active listening	69.90%	91.80%	.583*
Establishes clear rules at the beginning of the class about communication expectations, including how inappropriate statements will be treated	68.90%	90.50%	.602*

Promising Teaching Practice	Student Satisfaction (Satisfied/Very Satisfied)	Student Perceptions of Learning (Medium/High)	Correlation r
Communicating Outside of the Classroom:			
Sets up online discussion boards where students can pose questions and use email or other communication technologies	64%	85.40%	.664*
Provides alternative ways for students and the instructor to communicate outside of the classroom	66.70%	88.80%	.600*
Actively invites students to come to faculty office hours	71.10%	90%	.574*
Takes every opportunity to enhance student-teacher dialogue outside of the classroom	66.90%	84.90%	.680*
Culturally-Responsive Teaching:			
Designs culturally-relevant instruction demonstrating cultural caring	58.10%	79.50%	.720*
Engages in cross-cultural communications	58.30%	80.80%	.705*
Engages in cross-cultural learning	58.70%	80.70%	.689*
Highlights the unique contributions culturally-diverse students bring to class by allowing students the opportunity to share their backgrounds	60.20%	52%	.699*
Anticipates, values, and accepts differences among learning and ways of learning to create cultural safety and trust	64.60%	88%	.673*
Tries not to single out international students during class	68.70%	90.50%	.652*
Encourages students from other cultures to share how things may be different in their country	64.70%	86.60%	.711*
Helps students to identify cultural assumptions that create challenges to collaborative projects	61.60%	87%	.690*
Uses examples from students' home countries	60.20%	84.60%	.718*
Is intentional about connecting domestic and international students in the classroom	59.70%	83.90%	.711*
Uses culturally-sensitive teaching methods that empowers students by using cultural references to impart knowledge, skills, and attitudes	61.60%	84.20%	.703*
Helps student to identify cultural assumptions that create challenges to collaborative projects	61.60%	87%	.690*
Differentiated Instruction:			
Considers diversity in learning styles	62.60%	84.10%	.693*
Considers differences in educational histories	59.10%	81.40%	.676*
Pays attention to varied learning readiness	61.30%	83.10%	.675*
Pays attention to varied personal interests	57.50%	82.30%	.685*
Recognizes diverse culturally-framed ways of knowing	55.80%	83.20%	.670*
Uses more than one way to present material to mediate learning opportunities among students with a wide range of language expertise	61.10%	84.90%	.678*
Diversity and Inclusion:			
Recognizes student diversity	63%	87.70%	.649*
Appreciates that students come to higher education with a range of educational experiences and expectations	63.90%	87.40%	.668*
Models and encourages non-judgemental approaches to exploring different points of view	64.90%	90.30%	.694*
Builds community among diverse learners	60.50%	85.70%	.641*
Pays attention to varied culturally-frames ways of knowing	60.80%	86.20%	.695*
Focuses on how we can become global professionals	62.50%	86.30%	.681*
Models consideration and acceptance of various perspectives	65.50%	87.50%	.662*
Encourages students to view a situation or concept from another's point of view	68.40%	87.60%	.600*
Models tolerance for responses that have more than one meaning	63.70%	88.40%	.670*
Provides opportunities for students to reflect on and gain a better understanding of their own multiple (e.g., cultural, personal, disciplinary) identities	64.30%	87.90%	.649*
Uses inclusive language to help create a positive classroom climate	66.10%	89.20%	.664*
Invites guest speakers with various perspectives to enrich course content	64.50%	86.30%	.650*
Encourages student participation in extra-curricular events that promote awareness of diversity issues	60.50%	84%	.664*
Encourages students to get involved in various groups on campus	61%	83.80%	.643*
Feedback:			
Provides feedback often using multiple techniques	63.30%	86.60%	.693*
Requests feedback from students	62.30%	86.60%	.671*
Asks for student feedback on how they feel about the classroom climate	59.90%	80.70%	.681*
Encourages anonymous feedback	61.10%	82%	.703*
Encourages public feedback	57.10%	81.30%	.724*
Group Work:			
When creating groups, mixes cultures as much as possible	62.70%	86.10%	.687*
Begins group work assignments by asking students to talk about familiar topics as opposed to new concepts learned in class	60.50%	85.90%	.670*
Requires groups to include several different cultures	60.30%	83.40%	.673*
Initially, uses mixed group or partner work for class work that will not be graded	60.80%	84.20%	.664*

Promising Teaching Practice	Student Satisfaction (Satisfied/Very Satisfied)	Student Perceptions of Learning (Medium/High)	Correlation r
Builds grade percentages for group work through the term as students become stronger and more familiar with working in groups	60.70%	86.20%	.655*
Makes use of in-class group discussions when considering ways to promote interaction among students	64.70%	86.20%	.682*
Language Proficiency:			
Does not assume that because students have basic proficiency they also have academic proficiency	62%	51.50%	.634**
Pre-teaches discipline-specific vocabulary	56.40%	83%	.623*
Provides opportunities for language development within the curriculum	61%	83.40%	.722*
Provides students with a list of relevant dictionaries or other reference materials	60.90%	86.60%	.703*
Lecture Design and Delivery:			
Tells students what topics will be covered that day and how the lecture relates to information presented in previous lectures	73%	92.70%	.587*
Paraphrases, summarizes, and repeats difficult or key concepts so that students have multiple opportunities to grasp main ideas	67.70%	92.60%	.597*
Avoids slang and explains popular culture references	68.80%	90.80%	.628*
Uses verbal sign-posts such as "this is an essential point" to underscore important information	69%	91.80%	.586*
Makes lectures interactive	68.20%	92.20%	.618*
Uses interesting examples, real-life examples, and case studies	70.50%	92.40%	.646*
Distributes electronically lecture notes/slides and handouts with explanations of key concepts and ideas	73%	94.10%	.577*
Uses examples to illustrate and reinforce key concepts and ideas	72.20%	93.10%	.617*
Presents information using advanced structuring strategies by using an outline of material	71.80%	91.70%	.647*
Stresses coherence by referring briefly to material previously presented	67.40%	90%	.598*
Introduces supplemental readings	66.10%	89.50%	.579*
Allows students to contribute information from their country	63%	84.50%	.698*
Provides a summary of the key points to be covered in the class as an outline	68.70%	93%	.597*
Gives explicit summaries and clear transitions between sections	64%	92.20%	.630*
Makes lectures available by audio or video outside of class	58.80%	82.80%	.633*
Incorporates the use of cooperative and collaborative strategies into the classroom	64.40%	90.30%	.583*
Asks students to refer to some writing or reading that they did in preparation for class to engage in class discussion	66.80%	89.10%	.549*
Offers a question and asks students to write a response silently for a few minutes. This is then followed by class discussion focusing on the responses	61.20%	86.60%	.585*
Note-Taking:			
Provides students with tips for note-taking	60.90%	82.20%	.665*
Suggests approaches for studying difficult material	60.20%	84.70%	.654*
Gives directions for and show examples of good lecture and reading notes	64.60%	83.80%	.649*
Creates a peer support/mentor program for lecture note-taking	59.70%	81.40%	.679*
Physical Environment:			
Whenever possible, arranges the physical seating in the room so that the instructor and the students can all make eye contact with each other	65.60%	88.70%	.674*
Periodically arranges the classroom so that students can be seated in face-to-face groups to support group activities	59%	83.40%	.657*
Reviewing Material:			
Reviews material, using a variety of techniques, at regular intervals to check for comprehension	63.70%	90.10%	.632*
Integrates review activities into instructional strategies to link previous concepts with new ideas	63.60%	90.50%	.629*
Student-Centered Teaching:			
Learns student names and correct pronunciation by using name cards, name tags, or other reminders	61.10%	84.40%	.695*
Makes student learning the priority of teaching, which usually involves the use of active learning approaches	62.90%	88%	.625*
Arrives early in the classroom and uses every opportunity to talk individually with students who are also early	62.50%	88.20%	.623*
Stays after class to connect with students who stay behind	67.20%	88.20%	.659*
Pays attention to individual student experiences, especially those which may shape the ways that they participate in the learning process	63.90%	87.90%	.647*
Remembers and acknowledges personal information students share in class	62.90%	87.50%	.644*
Verbal Communications:			
Speaks clearly and at a normal rate, emphasizes key ideas and words, and provides enough pauses to allow time for questions and note-taking	69.70%	90.10%	.0569*

Promising Teaching Practice	Student Satisfaction (Satisfied/Very Satisfied)	Student Perceptions of Learning (Medium/High)	Correlation r
Avoids the use of long-winded or complex sentences	67.60%	91.50%	.626*
Tries not to use idioms or culturally-based examples	68.20%	91.90%	.526*
Doubles or triples the normal wait time for students to respond to questions	63.90%	88.50%	.635*
Asks for clarification when student responses are not clear	72.40%	94.10%	.605*
Encourages students to ask questions	74.20%	93.90%	.548*
Encourages students to respond to each other's comments and questions	69.90%	92.50%	.600*
Visual Communications:			
Uses visuals (e.g., diagrams, charts, pictures, overheads) to aid comprehension	73.80%	95.10%	.539*
Ensures that notes written on the board or on flip charts are legible from the furthest seat in the room	70.40%	93.30%	.601*
Uses print rather than cursive writing	69.20%	93.30%	.601*

* *Significant at the 0.01 level.*

Focus Group and Interview Data

Interview and focus group participants were mostly representative of international student enrollments at Canadian University regarding faculty/department of study, gender, age, and country of origin. Graduate students (68.18%) were overrepresented.

Student learning experiences were mainly positive. Most identified instructors as a key factor in the student experience. Some characteristics that instructors showed (e.g., humor, valuing of diverse cultures, an encouraging approach) were appreciated by student focus group and interview participants. Students at all educational levels endorsed a student-centered approach, use of interactive teaching methods, specific and prompt feedback, use of practical experiences, pleasant learning environment, and methods that support the learning of additional language learners. Students in the ESL program called for strategies that help improve writing, daily homework, and in-advance agendas. Undergraduates were interested in academic support, updated curricula, and partially filled slides in advance of class. Graduate students spoke of the importance of a free learning environment, multi-modality teaching strategies, use of digital and visual materials, and emotional, physical, and non-judgmental support from their supervisor.

Overall, ESL students indicated that instructor use of a student-centered approach, a supportive learning environment, and effective teaching methods (e.g., noticing individual student progress, use of an enriched English environment, group work) contributed to both their success and satisfaction with their learning. Upper-level ESL students said teaching strategies that resulted in them improving their writing skills incorporated visual materials, mini-assignments, and interactive methods. Games created a “relaxed” atmosphere where students “can stand and move around,” and helped them to practice speaking and develop grammar. In particular, students identified effective strategies including sentence editing, APA format instruction, and specific instructor feedback. Students were dissatisfied with teaching methods that led to boredom, such as too grammar-intensive teaching and use of the repeating-listening pattern, and a lack of encouragement provided by instructors. Students identified a combination of traditional lectures and interactive methods as effective teaching strategies. Mid-level ESL students said that daily homework enabled them to review what they learned, which enhanced their listening skills. They also commented that when class agendas were provided at the beginning of class, they were able to improve their class engagement. Moreover, students liked receiving patient and responsive support from their instructors.

The undergraduate students emphasized the importance of experiential and applied learning, and close interaction with their instructors. Oluwakeme, a Nigerian engineering student, commented, “I enjoyed all the practical projects we have [sic] in class.” They commented positively with regard to instructors being responsive, the availability of extra-curricular activities, systematic guidance, weekly quizzes, a no-phone policy, and receiving partially filled in slides in advance of class. Sarah, an American science student, commented on her experience in an out-of-class volunteer experience: ...I do enjoy working with my research team in the Chemistry Department...It’s volunteering, but it helps me so much with my other courses because I get a feeling of how I can link what I’m learning in my course to...what I’m learning in my lab to what I’m learning in my courses, and that helps make my knowledge and understanding of these concepts stronger. The students were less satisfied with academic support, teaching methods that call for learning by memorization, heavy workloads, the high frequency of tests, assistance in securing a co-op opportunity, and the connection of the curriculum with industry requirements.

Course-based graduate program students were satisfied with the free learning atmosphere, multi-modality teaching strategies, up-to-date course content, instructor attitudes and experience in the field, and use of experiential and applied teaching methods. They also spoke favorably about the following: approachable instructors, teaching that accommodates students’ language and academic abilities, feedback, multiple teaching resources, no phone policy, use of real world examples, digital resources, and hands-on assignments. Students indicated dissatisfaction with instructors who failed to engage international students in class discussions, instructors who were less open to the views of students, instructors who did not define terminology in advance to using it in class, use of student in-class presentations, lack of explanations, lack of class content, insufficient formative feedback, and interactive learning that is not explained in advance.

The research-based program graduate students spoke about the importance of their research supervisor relationship. Celso, a Brazilian law student, said his supervisor was “not judgmental at all” and understood his stress, allowing him flexibility with deadlines. Another student said the lack of supervision resulted in an extended study plan, and a supervisor change. The students emphasized that supervisors should try to understand their cultural backgrounds by listening to them, and helping them cope with culture-related difficulties. Most instructors were seen as very helpful and responsive. Students indicated that desirable assignments are those that resulted in learning that helped them with their thesis research. They also indicated satisfaction with engaging simultaneously in their own research and joint research with faculty. Jeng, a Chinese education student, expressed interest in instructors “giv[ing] us some strategies for us to learn.” Fahad, a Pakistani engineering student commented “...I believe that there should be more collaboration with the industries, so we can have an idea about the work ethics here in Canada.” Some expressed interest in increasing the availability of non-academic support services and course options.

Conclusions

This study identified the promising teaching practices for teaching linguistically and culturally-diverse international students who have high levels of student satisfaction and student perceptions of learning. It also found that most promising teaching practices identified as having high levels of student satisfaction also have medium/high student perceptions of learning. Some of the promising teaching practices with high levels of student perceptions of learning have moderate levels of student satisfaction. This suggests that instructors who use the teaching practices that are associated with high levels of student satisfaction will likely achieve high student perception of learning levels.

This study identified a number of potential recommendations for practice that include both teaching practices and instructor characteristics. In particular, there are many teaching practices that result in both student satisfaction and student perceptions of learning in the following areas: academic integrity, assessment, assignments, clarifying expectations, communicating outside of the classroom, lecture design and delivery, verbal communications, and visual communications. Some of the most frequently-cited teaching practices preferred by students include supportive learning environment, visual materials, mini-assignments, interactive methods, experiential/applied learning, extra-curricular activities, a no-phone policy, posting of partially filled-in slides in advance of class, and frequent formative feedback. Many students called for a multi-modal teaching style that combined traditional lectures and interactive methods.

Research participants also identified instructor characteristics as an important factor in the student experience. In particular, they said that students connect well with instructors who use humor, value diverse cultures, use a student-centered and encouraging approach, provide patient and responsive support, and encourage close interaction with peers and the instructor.

This study has several limitations, including:

- The response rate on the online survey was approximately two-thirds graduate students, which limits what can be said about the international undergraduate-student experience, except in aggregate ways.
- The perceptions of student learning data is self-reported, which makes it hard to discern how much student learning can be accurately associated with each teaching practice.
- The study was completed in the winter semester and is based on one semester of data. Research conducted for the full academic year may have created more response diversity.

Further research is needed to better understand how the identified promising teaching practices that produce high levels of student satisfaction and student perceptions of learning are impacted by individual student characteristics (e.g., study location, program stage, length of time studying outside of the country of origin, study level, country of origin, age, gender, parents' educational level) and whether culture is an intervening variable. We also need to learn more about which teaching practices predict high levels of student satisfaction and student perceptions of learning. Further research is also needed to study how student satisfaction and student perceptions of learning related to promising teaching practices change over time.

References

- Andrade, M. S. (2009). The value of a first-year seminar: International students' insights in retrospect. *Journal of College Student Retention*, 10(4), 483-506.
- Bray, S. (2017, December 5). The need for a theory of learning (opinion). *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/views/2017/12/05/need-theory-learning-opinion>
- Brunton, M., & Jeffrey, L. (2014). Identifying factors that influence the learner empowerment of international students. *International Journal of Intercultural Relations*, 43, 321-334.
- Canadian Bureau of International Education (2014). *A world of learning: Canada's performance and potential in international education*. Ottawa: CBIE.
- Canadian Bureau of International Education (2016). *A world of learning: Canada's performance and potential in international education*. Ottawa: CBIE.
- Charles-Toussaint, G. C. (2010). Prejudice against international students: The role of threat perceptions and authoritarian dispositions in U.S. students. *The Journal of Psychology: Interdisciplinary and Applied*, 144(5), 413-428.

- Choudaha, R., & Schulmann, P. (2014). *Bridging the gap: Recruitment and retention to improve student experiences*. Washington, DC: NAFSA: Association of International Educators.
- Cruikshank, K., Chen, H. L., & Warren, S. (2012). Increasing international and domestic student interaction through group work: A case study from the humanities. *Higher Education Research & Development*, 31(6), 797-810.
- Curtin, N, Stewart, A. J., & Ostrove, J. M. (2013). Fostering academic self-concept: Advisor support and sense of belonging among international and domestic graduate students. *American Educational Research Journal*, 50, 108-137.
- Dimitrov, N., & Haque, A. (2016). Intercultural teaching competence: A multi-disciplinary model for instructor reflection. *Intercultural Education*, 27(5), 437-456.
- Eaves, M. (2011). The relevance of learning styles for international pedagogy in higher education. *Teachers and Teaching*, 17(6), 677-691.
- Edwards, J., & Tonkin, H. (1990) (Eds.). *Internationalizing the community college: Strategies for the classroom*. *New Directions for Community Colleges*, no. 70. San Francisco, CA: Jossey-Bass.
- Elmgren, M., & Henriksson, A. S. (2014). *Academic teaching*. Lund, Estonia: Studentlitteratur.
- Fischer, K. (2011, May 29). Colleges adapt to new kinds of students from abroad. *The Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/Colleges-Educate-a-New-Kind-of/127704>
- Foster, K. D., & Stapleton, D. M. (2012). Understanding Chinese students' learning needs in western business classrooms. *International Journal of Teaching and Learning in Higher Education*, 24(3), 301-313.
- Fritz, M. V., Chin, D., & DeMarini, D. (2008). Stressors, anxiety, acculturation and adjustment among international and North American students. *International Journal of Teaching and Learning in Higher Education*, 24(3), 301-313.
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice*. New York, NY: Columbia.
- Glass, C. R., Kociolek, E., Wongtirat, R., Lynch, R. J., & Cong, S. (2015). Uneven experiences: The impact of student-faculty interactions on international students' sense of belonging. *Journal of International Students*, 5(4), 353-367.
- Harrison, N., & Peacock, N. (2010). Cultural distance, mindfulness and passive xenophobia: Using integrated threat theory to explore home higher education students' perspectives on 'internationalization at home'. *British Educational Research Journal*, 36(6), 877-902.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York, NY: Routledge.
- Helms, R. M., Brajkovic, L., & Struthers, S. (2017). *Mapping internationalization on U.S. campuses: 2017 edition*. Washington, DC: American Council on Education.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). New York, NY: McGraw Hill.
- i-graduate International Insight (2017). *Data regarding the 2016 international student barometer autumn wave*. Surrey, UK: i-graduate International Insight.
- Institute of International Education (2016). *Open doors 2016*. New York, NY: IIE.
- Kennedy, P. (2002). Learning cultures and learning styles: Myth-understandings about adult (Hong Kong) Chinese learners. *International Journal of Lifelong Education*, 21(5), 430-445.
- Kim, J., Tatar, B., & Choi, J. (2014). Emerging culture of English-medium instruction in Korea: Experiences in Korean and international students. *Language and Intercultural Communication*, 14(4), 441-459.
- Kinsella, K. (1997). Creating an enabling learning environment for non-native speakers of English. In A. I. Morey, & M. K. Kitano (Eds.), *Multicultural course transformation in higher education: A broader truth* (pp. 104-125). Boston, MA: Allyn and Bacon.
- Koul, R., & Fisher, D. (2005). Cultural background and students' perceptions of science classroom learning environment and teacher interpersonal behavior in Jammu, India. *Learning Environments Research*, 8, 195-211.
- Martin-Beltran, M., Guzman, N., & Chen, P-J. J. (2017). Let's think about it together: How teachers differentiate discourse to mediate collaboration among linguistically diverse students. *Language Awareness*, 26(1), 41-58.
- Nunes, S., & Arthur, N. (2013). International students' experiences of integrating into the workforce. *Journal of Employment Counseling*, 50(1), 34-45.
- Paige, R. M., & Goode, M. L. (2009). Intercultural competence in international education administration-cultural mentoring: International education professionals and the development of intercultural competence. In D. K. Deardorff (Ed.), *The SAGE Handbook of Intercultural Competence* (pp. 333-349). Thousand Oaks, CA: SAGE.

- Rice, K. G., Choi, C., Zhang, Y., Villega, J., Ye, H. G., Anderson, D., Nestic, A., & Bigler, M. (2009). International student perspectives on graduate advising relationships. *Journal of Counseling Psychology, 56*(3), 376-391.
- Smith, C., & Demjanenko, T. (2011). Solving the international student retention puzzle. Windsor, ON: University of Windsor.
- Tavakol, M., & Dennick, R. (2010). Are Asian international medical students just rote learners? *Advances in Health Sciences Education, 15*(3), 369-377.
- Tomlinson, C. A. (1999). Mapping a route toward differentiated instruction. *Theory into Practice, 44*(3), 183-184.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd Ed.). Alexandria, VA: ASCD.
- Trahar, S., & Hyland, F. (2011). Experiences and perceptions of internationalisation in higher education in the UK. *Higher Education Research & Development, 30*(5), 623-633.
- Valdez, G. (2015). U.S. higher education classroom experiences of undergraduate Chinese international students. *Journal of International Students, 5*(2), 188-200.
- Valiente, C. (2008). Are students using the 'wrong' style of learning? A multicultural scrutiny for helping teachers to appreciate differences. *Active Learning in Higher Education, 9*(1), 73-91.
- Wang, L., & Byram, M. (2011). 'But when you are doing your exams it is the same as in China' - Chinese students adjusting to western approaches to teaching and learning. *Cambridge Journal of Education, 41*(4), 407-424.
- Wu, Hsio-ping, Garza, E., & Guzman, N. (2015). International student's challenge and adjustment to college. *Educational Research International, 2015*, Article ID 202753.
- Yates, L., & Thi Quynnh Trang, N. (2012). Beyond a discourse of deficit: The meaning of silence in the international classroom. *The International Education Journal: Comparative perspectives, 11*(1), 22-34.
- Zhai, L. (2002). *Studying international students: Adjustment issues and social support*. San Diego, CA: San Diego Community College.
- Zhang, Z., & Zhou, G. (2010). Understanding Chinese international students at a Canadian university: Perspectives, expectations, and experiences. *Comparative and International Education, 39*(3), 1-16.
- Zhang, J., & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. *International Journal of Intercultural Relations, 35*(2), 139-162.