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Learner-Centered Instruction

AT A GLANCE

As Aslan and Reigeluth (2016) stated: "Schools are slowly but surely transforming from the large, impersonal, factory-model organizations of yore into human-centric spaces. This transformation entails creating smaller, caring communities of learning, fostering intrinsic motivation, and using both self-directed and active learning" (p.63). Learner-centered instruction as a new instructional paradigm shifts the focus from the teacher to the learner and assigns new roles to teachers and students in classrooms. In learner-centered classrooms teachers are viewed as facilitators of learning and students are expected to develop ownership towards own learning, actively seek knowledge both from human and non-human sources individually and in groups. With all the above stated, while teacher-centered classrooms focus on knowledge only, learner-centered classrooms focus both on knowledge and skills. For teachers and students to perform effectively in a learner-centered classroom they need to undergo attitudinal change and change of beliefs about student learning. However, the purpose of this research brief is to synthesize research conducted on learner-centered classrooms with the focus and to provide sample empirical studies conducted.

Introduction

Teacher-centered instruction and learner-centered instruction provide two distinctly different ways of thinking about teaching and learning experiences. Teacher-centered instructional approach provides *direct instruction* (e.g. guiding for reading, mastery learning, drill and practice). Learner-centered instructional approach provides *less-direct instruction* (e.g. problem solving, reading for meaning, concept mapping). In the book Education *Psychology: Theories of Learning and Human Development,* Jonson (2014) lists the following characteristics of learner-centered instruction: (i) open ended learning experience, (ii) choices for students, (iii) knowledge presented in meaningful context, (iv) social interaction, (v) student active engagement in learning process, and (vi) learning experiences based on learner's natural desire to learn. According to Doyle (2008) learning-centered environment "… an environment that allows students to take

some real control over their educational experience and encourages them to make important choices about what and how they will learn" (p. xv).

Several instructional techniques were mentioned as appropriate for learner-centered classrooms. The page www.teachthought.com lists 28 learner-centered activities, some of which are presented in the word cloud below.

Figure 2: Some Learner-Centered Activities

Student resistance to learner-centered instruction has also been addressed. In the book *Helping Students Learn in a Learner Centered Environment* Doyle (2008) listed eight reasons why students might resent Learner-Centered Teaching: 1) Old habits die hard; 2) High schools remain teacher centered institutions; 3) Learning is not a top reason students give for attending college; 4) Students don't like taking learning risks; 5) LCT doesn't resemble what students think of as school; 6) Students don't want to give more effort and LCT requires it; 7) Students' mindsets about learning make adapting to LCT more difficult; 8) Many students follow the path of least resistance in their learning. Faculty reflections of student perspectives were coded and analyzed to reveal significant themes.

Sample Studies on Learner-Centered Instruction

There is considerable amount of discussion on learner-centered classrooms at different instructional levels (i.e. school, college, university). Some empirical studies are presented below.

Unin and Bearing (2016), conducted a mixed methods study on brainstorming in learner-centered ESL classroom. Quantitative data were collected from 321 students using survey technique on: (i) the types of brainstorming activities used and the students' perceptions on using brainstorming activities to promote speaking skills. Qualitative data were collected using classroom observations in three different classes for 40 minutes each. Students' participation in the brainstorming sessions was observed to get a sense of their responses and interaction based on the tasks given by their teachers. The overall participation in each session was recorded and the involvements in the three different sessions were compared. Finally, three English teachers were also interviewed to obtain their views on the use of brainstorming strategies for speaking skills. The findings show that brainstorming activities using word lists, word mapping, and pictures are commonly utilized in the speaking tasks. It was observed that brainstorming contributed to the increase in students' motivation, confidence, and participation as reflected by the positive student behavior during classroom observations. In researchers' opinion, the study shed light on the use of brainstorming to

address student reluctance to speak English more voluntarily. It also provided useful insights for teachers to deal with the reluctance to speak in the ESL classroom.

Yamagata (2016) conducted a comparative study to investigate the effects of the learner-centered and the teacher-centered approaches for core-image-based basic verb learning with 241 Japanese EFL (English as a foreign language) junior high school students. The learner-centered approach was an activity in which participants found semantic relationships among several definitions of each basic target verb through a picture-elucidated card game. By contrast, the teacher-centered approach involved explicit instruction from the teacher explaining how several definitions of the basic target verbs are interrelated. At the end of the treatment period, a short questionnaire was distributed. Two-way repeated measures analysis of variance (ANOVA) revealed that the learner-centered approach was more effective than the teacher-centered approach regarding both retention rates for learned definitions and accuracy rates for novel definitions of the basic target verbs. The results of paired t-tests for the questionnaire also supported these findings.

Yilmaz (2016) conducted a qualitative study to explore the design of a learner-centered classroom in relation to the interactive technology integration that is using mobile technology to provide effective feedback in learning environment. Higher education students used mobile interactive technology with teacher, one term, to clarify science concepts in the course. A focus group interview method was used to collect data. The study findings suggested that mobile technology supported feedback effectively and promoted student engagement in the classroom.

Aslan and Reigeluth (2016) reported a study on the implementation of learner-centered instruction to grades 6 to 12. Self-directed, project-based learning approach for learner-centered education was implemented. Students selected an adviser who typically worked with them until graduation. Instead of courses, students engaged in self-directed, project-based learning in different disciplines. Students designed their own individual projects geared to meeting state standards. Advisers approved student project proposals, monitored student progress, and assessed student learning. Math was the only subject that was not part of project-based learning. Instead, the school used ALEKS Math in individualized computer study. Data were collected from 11 school administrators and advisers. As the researchers opined, the results of the study suggested that participants in the study perceived that schools interested in moving in the direction of learner-centered instruction must be prepared to help students adopt a different mindset about their education that is to think about their future, have the power to pursue their interests, and assume responsibility for their learning. They need to identify tools that can help save adviser time in monitoring student progress and determining when mastery of a standard has been reached in different subjects and in different grades. Learning math through project-based learning presented a special challenge, and educators agreed that mastery in math requires repeated practice of math skills that does not happen in authentic projects. In other words, educators need to be able to identify skills that need to be tutored vs. those that did not need tutoring so that the projects can be completed.

Avsec, Rihtarsic, and Kocijancic (2014) conducted a study to explore factors affecting student achievement and satisfaction in Open Learning (OL) in robotics class where students used own developed direct manipulation learning environment as learning context. Data were collected using a survey. The results of the study suggested that students have significantly positive perceptions toward using OL of robotics as a learning-assisted tool. Students behavioral intention to use OL was found to be influenced by perceived usefulness and self-efficacy. The analysis revealed five major categories of satisfaction factors: organization, implementation, professional content, interaction, and self-efficacy. The results also showed that learner–mentor/instructor interaction, learner–professional content interaction, and online and offline self-efficacy were good predictors of student satisfaction and course quality.

Stefaniak and Tracey (2015) reported an exploratory study that examined how undergraduate students experience learning in a learner-centered teaching environment and their perceptions of motivation towards learning material in an introductory public speaking communications course. Six faculty members participated in a semester-long study where their teaching strategies were observed. Three faculty members participated in a cognitive apprenticeship where they were taught how to implement learner-centered instructional strategies into their coursework. Participants were 109 students who were enrolled in an introductory public speaking course. Data were collected using classroom observations, interviews, and a survey. The findings of the study indicated that students who were engaged in learner-centered activities within the communications course demonstrated higher levels of motivation towards the course and were more actively engaged in learning.

Chang and Smith (2008) reported a study that examined relationships between students' perceptions of course-related interaction and their course satisfaction within the learner-centered approach in distance education in Computer Literacy and Application course students. The results of the study suggested that student-instructor personal interaction, student-student personal interaction, and student-content interaction along with students' perceptions of the features of the learning management system and gender were predictors of course satisfaction.

Alsardary and Blumberg (2009) reported a study on implementing the learner-centered approach in an upper - level mathematics course where the students had to present the material to the class instead of the instructor and make presentations on applied topics at regional meetings. The results of the study suggested that: (i) the students liked the course format, although originally they felt apprehension about learning from each other and about doing presentations; (ii) the students learned the course content as well or better than they did before the instructor implemented the method; (iii) the students learned other trans-disciplinary skills such as how to give presentations, how to give feedback to their peers, how to learn from feedback and to trust their peers, and (iv) the instructor enjoyed the additional connections made with students and felt that both the instructor and the students benefited from it. In other words, the results of the study were in favor of learner-centered instructional approach.

Other than exploring the impact of learner-centered classroom on student learning, there is also a line of research that focused on teachers' perceptions and beliefs of transforming to learner-centered instructional approaches as well as the challenges that teachers face in the transition process. Sample studies are below.

Shaffer (2016) conducted a qualitative study to explore elementary school teachers' perceptions on teaching in learner-centered classrooms. The results of the study suggested that while the elementary school teachers had a positive attitude toward instruction in learner-centered classroom and recognized the overall benefits of this type of instruction for students, they also had consensus about challenges related to the use of the approach such as: lack of training, support, and time. The participants expressed the need for more training, both pre- and post-certification. They also thought that support from legislators, administrators, and their community would be essential in overcoming their challenges.

Sheppard and Brown (2014) conducted a qualitative study to explore how leadership for twenty-first century learning is distributed within public schools and school districts as they strive to transform their school classrooms from primarily teacher-directed toward more student-centered and technology-enhanced. The results of the study shed light over the challenges of leading classroom innovation, including costs associated with technology acquisition and the provision of quality professional development. The findings of the study raised the awareness that schools and school districts have invested heavily in the acquisition of emerging technologies (software and hardware), however, many teachers do not have ready

access to these technologies in their classrooms. Additional challenges include the absence of an articulated implementation plan, limited access to appropriate teacher professional development, and the absence of classroom support for teachers.

Conclusion

As the studies reported above suggest, students seem to appreciate the opportunity of having ownership over own learning and it seems that in learner-centered classrooms they are more motivated to learn and show more effective performance. It also seems that learning in learner-centered classrooms are retained longer. Additionally, it seems that learner-centered classrooms are beneficial not only for students but also for teachers and instructors. There is also a line of research that discusses the challenges of transferring from teacher-centered instructional practices to learner-centered instructional practices and it seems that while schools seem to have the appropriate technology to support instruction in learner-centered classrooms, teachers need support in introducing the change.

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