Research Article

An Exploration of Students Learning Engagement in Application-oriented Universities in China

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ABSTRACT

Learning engagement is an indicator of the quality of education. The purpose of this study is to explore the influencing factors of learning engagement learning engagement in application-oriented universities. The researcher, using grounded theory, selected 22 interviewers through purposive sampling and coded their interview data. The results show that employees 'support and motivation are the important variables affecting learning engagement. Employee support includes autonomous support, emotional support, and competent support; motivation mainly includes master goal, performance goal approach and performance goal avoidance. The significance of this study is to provide a basis for universities to formulate effective educational policies to enhance students' learning engagement, and to provide practical suggestions for building a learning environment that promotes learning engagement.

1. Introduction

Higher education has entered the stage of universal, and China's education will shift from high-speed development to high-quality development. The core of high-quality education is the high-quality training of talents and the promotion of student development. Evidence in higher education shows that learning engagement promotes students' moral and personal development. (Buckley & Lee, 2018). Over the past few decades, there has been an explosion of learning engagement. Because learning engagement can solve some persistent educational problems, such as low academic achievement and academic burnout. (Fredricks, 2015). To promote the connotative development of higher education and improve the quality of undergraduate education in China, universities are facing the supply-side structural reform of higher education. To solve the problem of convergent development and achieve better development, they are actively seeking strong motivation for characteristic development. Take the initiative to make transformational choices. Faced with outstanding development tasks, young Chinese are going through the most unstable period of their lives. According to the stage-environment matching theory, only when school resources match the basic needs of students' development at this stage can help they achieve positive development. (Eccles et al., 2011) On the other hand, the university is a period of significant changes in social relations, and the main sources of support relations have undergone significant changes. A support network is an important resource for university students to cope with changes and new situations. The socio-ecological theory emphasizes that the school is the proximal microsystem that has the greatest impact on student development besides the family, and employees in universities are the most critical factor in this microsystem. When students spend most of their time in school, the influence of family on their development is gradually weakened. When family support capacity declines, employee play a role in their development as a source of social support. This study aims to study the following main problems: What are the main influencing factors for the learning engagement of application-oriented university students? How do the employees' support and achievement goal orientation affect college students' learning engagement?

2. Objectives

To explore the influencing factors of learning engagement in applied-oriented universities in China.

Literature Review
Learning Engagement
Since the 1990s, learning engagement has been regarded as an important factor in determining students' learning and personal development. Since the concept of "learning engagement" was introduced into academic research, Scholars have recognized and studied different perspectives of learning engagement, including behavioral, psychology, sociology. Kuh (2001) believes that college students' learning engagement includes two aspects: one is the individual effort and engagement led by students, and the other is the creation of the overall learning environment led by colleges. The core of students' learning engagement is the interaction between students' learning and the overall environment of colleges. Fredricks et al (2004) proposed that students' learning engagement is a meta structure that integrates behavioral, emotional and cognitive engagement, and that the three elements in the meta structure are not isolated processes, but dynamically related within individuals. Christenson,

Reschly and Wylie (2012) believe that participation is students' active participation in learning activities. Lam et al (2014) pointed out that learning engagement is a psychological process and a mediating variable of situational factors on learning achievement, which is reflected in students' efforts, interests, enjoyment and full devotion. Johnson and Sinatra (2013) defined learning engagement as the interaction between learners' motivation and learning tasks. In 2010, the higher education academy carried out a literature review on students' learning engagement. It was found that scholars agree that learning engagement of Jennifer Fredricks et al includes behavior, emotion and cognition. This study adopts Fredricks' definition of learning engagement and considers that learning engagement is the engagement of students' emotion, behavior and cognition in learning.

Employees' Support

Employees are part of the professional and technical staff employed and managed by universities on a contract basis, primarily to address staffing shortages caused by a lack of teacher staffing (Zhang,2012). According to the theory of basic psychological needs, employees support means that employees influenced students' behavior by satisfying students' basic psychological needs (Deci et al.,2000) .

The theory of basic psychological needs is the core content of self-determination theory. The theory postulates that people are positive organisms with an innate tendency to grow. The realization of human development and growth tendency does not happen in a vacuum but requires internal motivation. The intrinsic motivation for the realization of this tendency of growth comes from the innate basic psychological needs of individuals, which is the basis and condition of intrinsic motivation, self-acquisition, personality integration and positive development. The satisfaction of inner basic psychological needs to be supported by the environment. When the environment supports the satisfaction of the organism's inner basic psychological needs, the individual can stimulate inner motivation and obtain a sense of self. On the contrary, their autonomous motivation and social function will be damaged.

Starting from the social environment that promotes intrinsic motivation and mental health, the researchers of self-determinism have identified three basic psychological needs of human beings: the need for autonomy, the need for competence and the need for belonging. Competence needs refers to the ability to succeed at the most appropriate challenging task and achieve the desired results. Autonomous need, which involves experiencing choices and feeling like one is acting like a pioneer; "Relationship need" refers to an individual's experience of connecting with others, loving and caring for others, and being loved and cared for (Ryan&Deci,2017). The concept of psychological needs becomes the core of the connection between external environment and individual motivation and behavior. When environmental factors support the satisfaction of the three psychological needs, it will promote the internalization of intrinsic motivation and extrinsic motivation. Employees can influence students' behavior by meeting their basic psychological needs, which is a resource to promote students' learning engagement through realizing goals, meeting demands and reducing negative effects. (Bakker&Demerouti, 2017).

Achievement Goal Orientation

Achievement goal theory is one of the most famous motivation theories in the field of education research. The theory seeks to understand the reasons behind individuals' motivation

to achieve competence and performance. (Huang,2012) Goal-directed research has made theoretical advances in seeking a better understanding of achievement motivation and its impact on performance in achievement contexts, and has provided useful suggestions for practitioners, such as educators and managers (Kaplan&Maehr,2007).

The achievement goal theory was first proposed by Nicholls, who believed that children's motivation to complete tasks might be related to some factors, such as effort, intention, and goal. He sought to demonstrate how children judge their own abilities by their perceived level of knowledge and performance or by how they compare themselves to others. Dweck has since extended this concept by demonstrating the relationship between the way individuals approach tasks and their responses to task success and failure. Elliot (2008) defined the three-factor structure of achievement goals on the premise of two-factor structure, and the main task was to absorb the approach and avoidance dimensions into the redefinition dimension. That is to say, the achievement goal is divided into two subordinate factors: achievement - approach and achievement - avoidance goal. They interact with the mastery goal and finally form a three-factor theoretical structure. Achievement - Close to the goal factors tend to be compared with others in the process of how to demonstrate a higher level, to achieve better results. Therefore, some aspects of achievement - approaching goal orientation and mastery of goal orientation will show some similar behaviors, such as choosing difficult tasks to complete to demonstrate one's own ability. But result one by one close to the goal and mastery goal still have certain difference, because the target factor ultimate aim is to achieve the best results a close ideal results, which prove their ability has been the strongest, once the results did not reach for individual motivation level and sticking with the task is great negative effects. The outstanding focus of the group is how to avoid some of their weaknesses in the completion of the final task process, you can choose low difficulty work, to avoid exposing some shortcomings. The latest three-factor model of achievement goal dimension has been widely recognized by researchers at home and abroad and made a breakthrough. The effect of achievement approach goal is more obvious than that of mastery goal in improving the achievement level of all subjects, while achievement avoidance goal is obvious in improving the good results.

3. Research Methodology

This study adopted qualitative method to analyze the demands of university students in application-oriented university for employees' support and divide dimensions and construct the employees' support theoretical model of the impact of university students' learning engagement. Purposive sampling was used in this study to select interviewee from three representative application-oriented universities, the interviewees must meet the following conditions: (1) Administrators who are familiar with higher education policies and systems and have rich teaching and management experience; (2) Administrators who have a deep understanding of the teaching situation of teachers and the learning situation of students, and can to put their ideas into words. Based on the above principles, referring to Creswell's (2021) book "Qualitative Exploration and Research Design: Five Traditions", the recommended sample size for qualitative research is 20-30. Finally, 22 experts from three universities were selected as interview subjects.

This study used semi-structured in-depth interviews to collect data. Semi-structured interviews are suitable for studying people's perceptions, insights, and emotions, and fit with

the research questions of this study (Kallio,2016). Before the interviews were conducted, the interviewees were first contacted through telephone to agree on the time and method of the interviews, considering the interviewees' working hours and regions and the COVID-19 epidemic. The interviews were conducted by telephone interviews, WeChat video interviews, and Tencent conference interviews. many forms. After the interview, the researchers converted the recordings into text materials, and marked the respondent's facial expressions and body language accordingly, as the basis for analysis and coding. Finally, the research adopted the procedural grounded theory method and selects the coding modes of open coding, spindle coding and selective coding to analyze the encoding of each variable, then constructed the employees' support theoretical model of the impact of students' learning engagement.

4. Results

The results of the study found that teacher support was a key factor influencing college students' engagement in learning, and we obtained the dimensions of teacher employees support by coding the interview transcripts of 22 experts. It is proposed that teacher support includes three dimensions: autonomy support, emotional support, and competence support.

Employees' Support
Employees' support is a positive social resource. When a student perceived the care and love of employee, when providing guidance and help for their own academic issues and social issues, students will show positive learning walk for social behavior and achieve good academic performance. Employees support consists of the following elements: autonomous support, emotional support, and competent support.

Autonomous support. The key information of the interview is as follows: T2. "Listens to students' ideas, has little control over the content, does not provide answers for students, seeks more input from students." T4. "Encourage students to initiate behavior and express themselves." T5. "Reduced control." T6. "Empowering students to have Support students' needs for autonomy by giving them voice and choice over the activities they participate in." T16. "Allow students to make choices, listen to their perspectives, and seek students' opinions." In conclusion, students sense the extent to which employees' respect their views and feelings, give them space and opportunities for free choice, and support their freedom to explore and solve problems independently, allowing them to participate in making decisions. Therefore, we present the result as in the table 1

Table 1 Summary of Autonomous Support

Autonomous support	Details
T2,T6,T20	Listen carefully
T2	Little control
T13,T16,T19	Give students the right to choose
T20	Encourage students to work hard

Emotional Support. The key information of the interview is as follows: **T1.** "If the student feels that the employees'(such as teacher) care for the student, there is a good chance that the student will enjoy taking the course." **T12.** "During my listening sessions, I found that in some classes, the positive and relaxed atmosphere where students experienced a sense of security and were able to boldly express their thoughts and discuss academic issues with the teachers, while in other classes there was little interaction and students were afraid to speak up in class." **T20.** "The students I work with are hard-working and self-motivated because I take the time to care for them, enjoy interacting with them, and provide resources for them." Therefore, we present the result as in table 2.

Table 2 Summary of Emotional Support

Emotional support	Details
T1	caring and loving
T12	Positive, relaxed atmosphere, listening, trust, respect
T20	take the time to care for, enjoy interacting, provide resources

Competent support, employees provide clear and specific expectations, instruction, guide, support and constructive feedback to student's expectations, instruction, guidance, support, and constructive feedback to students. The key information of the interview is as follows T3. "Employees (such as teachers) need to provide clear, understandable, direct and detailed instructions to student's instructions" T13. Give timely feedback to students." T15. "When students encounter difficulties in the learning process, teachers must give the necessary help and guidance" T17. "In and out of class Provide positive feedback and encouragement to students, design different types of learning tasks, give students enough practice time, and guide students to focus on the process rather than the outcome of learning. and guiding students to focus on the process rather than the outcome of learning" T19. "Ways for employees to provide positive feedback to enhance students' sense of competence" T21. "Communicate your expectations to students" T22. "Encourage students", therefore, we present the result as in table3.

Table 3 Summary of Competent Support

Competence support	Details
T3	Clear instructions
T13, T15, T17, T19, T22	Feedback, help, encourage and guidance.
T21	Expressing clear expectations

Achievement Goal orientation: Achievement goal is to set achievement-related tasks to guide and sustain individual efforts to accomplish and reach the final goal in a specific achievement context. According to Elliot's trichotomous theoretical framework, achievement goal orientation is divided into performance goals and mastery goals. Performance goals include performance approach goals and performance avoidance goals.

Master goal approach emphasize on knowledge mastery and competence, individuals with such goals have positive intrinsic motivation and high interest in the task. The key information of the interview is as follows, T1. "Applied university and universities are required to be practice-oriented and are required to have students mastering skills. " T5. "Students must be encouraged to master the knowledge points to improve their abilities and be guided to hold

mastery goals." T7. "Students should focus on the absorption, understanding and mastery of knowledge and put the focus on their comparison." T8. "Students are encouraged to learn as a means or way to improve their abilities." T20. "Students are guided to use intrinsic criteria to judge whether their ability has improved."

Performance approach goals emphasize performing better in comparison to others. comparison, and such goals induce more competitive behavior and predict more positive performance tendency goal emphasizes performing better in comparison with others. The key information of the interview is as follows: T3. "Since the undergraduate employment situation is not optimistic, then more students choose to graduate school after graduation, then grades are also important for students." T4. "Current school scholarships and merit graduation requirements require comparative grades." T5. "As learning practice grows, students may switch from mastery goals to performance goals." T7. "It is not about improving the intrinsic ability of self, but more about achieving desired values and getting recognition from others." T11. "Students always want to strive to outperform others and demonstrate their abilities." T15. "Some students think the ranking is important, which has a lot to do with his applying for scholarship and going to graduate school." T17. "Some students will use others as a benchmark and compare with others." T22. "Most students choose to study for scores and rankings"

Performance avoidance goals focus on avoidance of incompetence or incapacity, in which the internal structure of the individual is negative and prone to negative emotions such as anxiety and accompanied by a lower desire to achieve. The key information of the interview is as follows: T11. "Students try to avoid being surpassed by others and show incompetence themselves." T15. "Some students think I don't want to be the best in the class, if it's not the worst." T16. "Pretending to study to cope with the strict management of the teacher, knowledge also learns to swing, and ability is difficult to improve." T17. "Negative attitude and don't care about anything." Therefore, we present the result as in the table4.

Table 4 Summary of Achievement Goals

Achievement goals	Details
T1, T5, T7, T8, T20	Master skills, absorption, understanding and mastery of knowledge, improve abilities, intrinsic criteria
T4, T4, T5, T7, T11,	Grades, outperform others, demonstrate their abilities, rank, compare with others, scores
T15, T17, T20, T22	
T11, T15, T16, T17	Show incompetence, Pretending to study, negative attitude

Learning engagement: Students ' learning engagement is very complex. In fact, it not only includes time and energy such as listening carefully to complete the homework, participating in extracurricular activities, but also should include positive learning attitude, positive emotions, learning interest, and be able to understand and master the knowledge and skills learned and be able to flexibly use to solve practical problems. The key information of the interview is as follows: T3. "Some students completed their homework very well, and the homework was carefully prepared at first glance, and some students dealt with it temporarily and copied the homework." T8. "Students must be encouraged to participate in interaction, so that students can express their opinions bravely. The high frequency of interaction indicates that students are thinking and learning. This is a good phenomenon and should be encouraged

more. It is in the process of teacher interaction that students generate cognitive conflicts, and then they can produce higher learning levels." T16. "Interest is the best teacher, and the first prerequisite for students to learn is to mobilize and stimulate their interest in learning. So, let the students know what to study? How to learn? Therefore, teachers should make more efforts in teaching concepts, teaching methods and teaching content to stimulate students' interest in learning. Let university students feel the classroom, feel the knowledge, and stimulate students' curiosity."T21."If learning is happy, students must be willing to learn, but in fact learning is not a happy thing, then we provide students with an environment that makes them feel happy, although they feel that this is both a school and their home, The faculty, staff and classmates here are friendly and gentle like family members, so that students can feel that the school cares for them. Students who feel a sense of belonging are likely to reach their greatest learning potential." T9. "Learning at the university stage can no longer be limited to simple shallow learning. Students should actively and critically learn new ideas and knowledge based on understanding, use a variety of learning strategies to deeply process knowledge and information, and establish a multidisciplinary approach. The connection between knowledge, multi-channel information, old and new knowledge information, etc., to construct a personal knowledge system and effectively transfer and apply it to real situations to solve complex problems." T7. "Students will set semester goals, stage goals, and learning standards for themselves according to the course content and requirements to promote learning. Know what they want to learn?" We present the result as in table5.

Table5 Summary of Learning engagement

Learning engagement	Details
T3, T8	Learning motivation, interaction
T16, T21	Interest, sense of belonging
T9, T7	Deep learning ability, Goal planning, self-regulated learning

5. Discussion

Using qualitative research methods to explore the influencing factors affecting the learning investment of students in applied universities. The results of the study found that if you want students to actively invest in learning, students must give students opportunities to choose, listen to students' opinions, and seek opinions from students (Alivernini & Lucidi,2011）T16 said. "Allow students to make choices, listen to their perspectives, and seek students' opinions." T2 said. "Listens to students' ideas, has little control over the content, does not provide answers for students, seeks more input from students." Researchers from Vallerand, Fortier, and Gum, Xuay (1997) found that autonomous support from teachers, parents and school administrators can enhance students' autonomy and sense of victory, and further, which will promote its autonomous motivation. Sakiz, Pape and Hoy (2012) have found that teachers 'emotional support can reduce the sense of academic helplessness of students' perception, and the sense of helplessness of academics is not conducive to their academic efforts, T1 said. "If the student feels that the employees' (such as teacher) cares for the student, there is a good chance that the student will enjoy taking the course." Reddy, et al（2003）Studies have found that teachers' care, concern, respect, and concerns about students can improve their self - esteem and learn from their own learning. The T12 mentioned many times to respect and trust students. Ryan and Deci (2009) pointed out that active teacher feedback can enhance students' sense of victory and then promote and guidance internal learning motivation. In the interview,

many expertsT13, T15, T17, T19, T22 said. "Feedback, help, encourage guide, which will help to promote students' learning engagement.

In addition, we also found that during the learning process, when students 'learning needs are met, it can stimulate students' motivation for learning. The satisfaction of learning needs comes from the perception of teachers. Therefore, teachers must comprehensively evaluate students' learning needs. Just as T1 and T5 mentioned, "Is the student studying a certain course to improve the ability? Or is it to get high scores? Or can you get good scores and achieve good scores?" That is to measure their choices through achievement goals. According to Diseth etal., (2012) employees' support significantly positively predicted the choice of individual mastery goals and performance approaching goals T5 said. "When teachers meet the basic psychological needs of students, students want to learn to give back to the teacher's care and teaching, and they will strive to improve their ability or achieve good results." But for avoiding the goal, such as T17 said. "Negative attitude and don't care about anything." Xu et al (2020) found When university students especially need to maintain the face of personal ability, they often adopt the strategy of avoiding communication to avoid being considered insufficient by others; When university students especially need to maintain the face of learning morality, they often reduce the face threat in learning morality by showing more serious self-discipline behavior or interactive communication behavior. Based on the above analysis. We proposed the conceptual frame of social innovation as shown in figure 2.
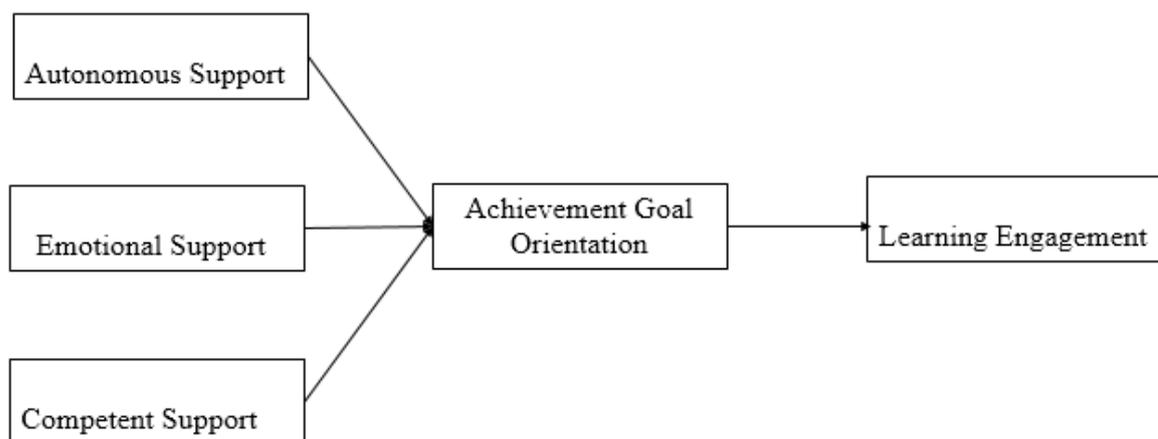

Figure 1 Conceptual framework

6. Conclusion

This study explores the influencing factors of learning input in applied universities in a qualitative method and builds a model. In research, we focus on the inner motivation of Employees Support and achievement goals. The results show that Employee Support, package independent support, emotional support, and ability support. The target includes mastering the goal, the performance approaching goals and performance avoidance goals. The contribution of this study is to integrate the selection of perception support and expectations in a framework to explore the motivation of college students to learn. In addition, the results

of the research will provide scientific paths for universities to promote the learning investment of college students, improve the quality of higher education, and use the evaluation of students' learning needs, improve teachers' support, and stimulate students' motivation for learning. In the end, this study will also reveal that the learning investment of college students is not only related to motivation, but also closely related to the support teacher support, because perception support is the external resource of the engine. However, there are also some limitations in this study, which stimulate the psychological factors of college students' learning engagement. It also includes learning efficiency, achievement motivation, expectations, etc. This will be the direction of our future research. In addition, we have proposed teachers' support to affect learning input models. This model has not been verified by empirical verification. Therefore, future study will use quantitative method or mixed method to study.

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