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# Developing Students' Intrinsic Interest in Reading Challenging Articles: An Application of Basic Psychological Need Supports

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## Abstract

*Intrinsic motivation in doing academic tasks were important psychological aspects for improvement of students' learning. However, intrinsic motivation in reading research articles was observably low among Cambodian undergraduate students. Therefore, developing or sustaining their intrinsic motivation was a needed treatment to enhance students' learning.*

*Self-Determination Theory (SDT) posited that intrinsic motivation could be increased when students are satisfied with Basic Psychological Needs (BPNs) which may be cultivated through learning environments that make them feel competent, autonomous, and relative to the others while doing an academic task. This study intended to examine whether BPN supportive learning environment is salient to increase intrinsic motivation in reading a research article. 27 participants who were undergraduate students and enrolled in a course of community psychology were purposively selected to fill in a self-administrative questionnaires of Intrinsic Motivation Inventory before and after attending the reading activity. As a result, level of intrinsic motivation in reading was increased in 10 units (64.74 to 74.44) after the activity finished. It was concluded that BPN supportive learning environment was important to increase or at least sustain intrinsic motivation among these particular students. The implication of this study result in the classroom practices was discussed under the SDT perspectives.*

**Keywords**: Intrinsic Motivation, Basic Psychological Needs

## Abstrak

*Motivasi intrinsik dalam mengerjakan tugas akademik merupakan aspek psikologis yang penting untuk peningkatan belajar siswa. Namun, motivasi intrinsik dalam membaca artikel penelitian sangat rendah di kalangan mahasiswa sarjana Kamboja. Oleh karena itu, mengembangkan atau mempertahankan motivasi intrinsik mereka adalah perawatan yang diperlukan untuk meningkatkan pembelajaran siswa. Self-Determination Theory (SDT) mengemukakan bahwa motivasi intrinsik dapat ditingkatkan ketika*

*siswa puas dengan Basic Psychological Needs (BPNs) yang dapat dikembangkan melalui lingkungan belajar yang membuat mereka merasa kompeten, otonom, dan relatif terhadap orang lain saat melakukan tugas akademik. . Penelitian ini bertujuan untuk menguji apakah lingkungan belajar yang mendukung BPN penting untuk meningkatkan motivasi intrinsik dalam membaca artikel penelitian. 27 peserta yang merupakan mahasiswa S1 dan mengikuti program studi psikologi komunitas dipilih secara purposive untuk mengisi angket self-administrative Intrinsic Motivation Inventory sebelum dan sesudah mengikuti kegiatan membaca. Hasilnya, tingkat motivasi intrinsik membaca meningkat 10 satuan (64,74 menjadi 74,44) setelah kegiatan selesai. Disimpulkan bahwa lingkungan belajar yang mendukung BPN penting untuk meningkatkan atau setidaknya mempertahankan motivasi intrinsik di antara para siswa tersebut. Implikasi dari hasil penelitian ini dalam praktik kelas dibahas di bawah perspektif SDT.*

**Kata Kunci**: Motivasi Intrinsik, Kebutuhan Psikologis Dasar

## A. Introduction

Academic reading is a fundamental activity required for adult learners to comprehend lesson concepts or serves for various academic purposes. Observably, students in community psychology class seemed to be self-demotivated when they had to read complex articles that were not in their preferences. In fact, these students found themselves difficult to read research articles probably due to limited reading experiences, language barriers, feelings toward a particular reading environment. Consequently, some of them decided to withdraw from the provided reading activities or just continued with dissatisfaction. In reality, not all the assigned learning tasks respond to all the students' different

interests. As a result, the students who have less internal interest toward their learning tasks may engage passively and pay less effort in completing tasks and in turn minimize the possibility to achieve high performance. Therefore, how to develop students' intrinsic interest in accomplishing challenging academic tasks has become a major concern in learning and teaching areas.

Motivation was defined as one's power to intensify and direct behavior in a certain task accomplishment (Reeve, 2009a). In a motivational process, energies sustained the interest toward a specific goal orientation. Intrinsic and extrinsic motivations were generally known as the main sources for task engagement, and internalization or integration was academically understood as a process transforming amotivation and extrinsic motivation to be proximally linear to intrinsic motivation. Internalization processes facilitated learners' perceived learning tasks across a continuum ranging from extrinsic motivational regulation to intrinsic motivational regulation (Deci & Ryan, 2000).

Intrinsic motivation appeared when individuals' interesting and joyful behaviors in an activity were observed without any facilitation from external forces (Deci & Ryan, 2000). People who were intrinsically motivated were internally attached with curious and interested emotions explicitly observed via their behaviors to explore and engage in the activities with a sense of inherent fun, challenge, and excitement (Deci & Rayan, 1985).

In the reality of classroom settings, teachers usually forced students to engage in learning projects with compensation of external motivation sources; however, this way would not cultivate students' inherent interest to volitionally involve doing the tasks with sustainable engagement and better performance. Students' internal forces producing intrinsic motivation were likely neglected to develop throughout a particular organized activity. Students' intrinsic motivation was assumed to be enhanced, facilitated, and sustained through classroom activities supporting their basic psychological needs (competence, autonomy, and relatedness) which were positioned in one's

inner self. Satisfying the basic needs, students may internalize their interests redirecting toward a particular useful given class activities.

It was theoretically revealed that satisfaction of the three basic psychological needs was all important to recruit intrinsic motivation in doing a certain task with culture free and disregard of individual differences (Deci & Rayan, 2000). However, how much importance of basic psychological needs in modifying intrinsic motivation in a typical learning activity among Cambodian population or context was remaining in question. Coming from Self-Determination Theory (SDT) perspective, individual intrinsic motivation in doing an activity was observed when the psychological needs (competence, autonomy, and relatedness) were adequately fulfilled (Deci & Rayan, 2000; Baard, et. al, 2004). Additionally, the sustainability of intrinsic motivation was conditioned by the satisfaction of those needs. According to this theory, the high or low quality of intrinsic motivation a student possesses depended on the extent to which the psychological needs were satisfied by him/herself.

Teachers' support of students' basic psychological needs in autonomy, competence, and relatedness facilitated students' autonomous learning self-regulation, academic performance, and wellbeing (Grolnick et al., 1991; Niemiec & Ryan, 2009; Niemiec et al. 2006). The meaning of support in SDT was not relatively taped in the external control such as rewards, monitoring and evaluation, and supervising provision to reinforce learning, but it was the organizing activities and teacher beliefs that would cultivate students' inherent interest and autonomous behavioral enhancement in learning (Rayan & Brown, 2005).

The constructs of universal psychological needs were distinguished differently in their operational definitions although they needed to be integrated together in a motivation process. The need for autonomy referred to the experience of behavior as volitional and reflectively self-endorsed (Niemiec & Ryan, 2009). For example, students were autonomous when they wil-

lingly devoted time and energy to their studies. The need for competence referred to the experience of behavior as effectively enacted (Niemiec & Ryan, 2009). For example, students were competent when they felt they were able to meet the challenges of their schoolwork. The need for relatedness was defined as an individual's inherent tendency of connectedness with a sense of belongingness and communion to a working group and feelings of being supported and cared for by others (Baumeister & Leary, 1995). In the classroom setting, students experience relatedness when they are respected and valued for their works.

Psychological need supportive activities were designed to pursue a particular achievement outcome. According to Niemiec and Ryan (2009), supporting the need for competence referred to the introducing challenging activities that allowed students to exercise and expand their abilities. In reading research articles, it was a reading exercise which comprehensively explored the main sections in the articles such as research problems, theoretical and literature reviews, methods, and findings. The students were given the form listing those sections with a clear explanation of what each section was about. Moreover, the students were given feedback to promote success and efficacious emotion. It was not the feedback which tended to evaluate students' competence of reading but it was the one that provided the necessary information on how to undertake the task effectively. Supporting the need of autonomy involved the activities assigned to students with minimized pressure of taking evaluation and without a sense of using forces (Niemiec & Ryan, 2009). They were engaged in reading with freedom of choices and voices of making decisions. They were given a right to choose the reading articles which they were familiar with and select their own strategies to work on it.

According to the above concept and practices of SDT, the sustainability of intrinsic motivation was conditioned by the satisfaction of the needs of competence and autonomy. Both basic needs had to be collocated in maintaining the intrinsic motivation since a student who had solely the need of competency would not sustain their intrinsic motivation when there was an absence of

the need of autonomy (Deci et al., 1999; Niemiec & Ryan, 2009). It was suggested that practitioners should design learning activities combining supports that fulfill the two needs together to intensify learning interest of the learners.

In addition to the existing knowledge that focused on the two types of basic psychological needs, the researcher also assumed that relatedness supportive activities or behaviors should be embedded as the third supportive components to increase intrinsic motivation in reading research articles. It would be proposed to be tested because there was an explanation that relatedness could be integrated to boost up intrinsic motivation and subjective well-being when learners had a sense of interrelationship and felt belonging to the group (Markus & Kitayama, 1991). Furthermore, social support from teachers and peers had an effect on students' motivation to engage in learning English among South-East Asian college students (Ke & Aruta, 2017).

Supporting the need for relatedness was the activity in which students felt socially connected, cared for by others (Bowlby, 1979; Ryan, 1995), and belong to the group (Niemiec & Ryan, 2009). In reading a journal, the activities were designed to provide students the experiences of being respected, accepted and valued for their reading tasks from the teacher. The connection among students and teachers to facilitate the reading task was the essential learning behaviors. From the teacher's positive and encouraging behaviors, students were allowed to ask for clarification and supervision when they were facing challenges. Furthermore, they were motivated to have group discussions, shared experiences and even completed their work as a pair or group according to their preference.

The purpose of the study was to examine the development of intrinsic motivation in the journal reading activities among undergraduate students before participating the reading activity and after involving designed learning activity—supporting the needs combining autonomy, competence, and relatedness support. How this supportive learning environment contribut-

ed to increasing or sustaining intrinsic motivation in reading research articles among Cambodian college students would be the main research question in this study.

It was hypothesized that the level of intrinsic motivation of students who participated in the reading activity which the combining supports was treated would be higher than the one at the early phase. The increase in the level of intrinsic motivation in reading after offering the three supportive learning environments would be observed since the three types of need supports had to be formed together as a model to address low learning interest problems in the reading task. Moreover, socially desired interrelationships may be needed in addition to feeling competent and autonomous for these particular students. Connectedness and collaboration among people in the class may enhance their internal motivation to do challenging academic tasks.

## B. Method

The study uses single-group interpreted time-series experimental research design to test the set hypothesis. An outcome variable—intrinsic motivation in reading—was investigated to identify its variations when the BPN supportive based learning environment—predicting variables—would be treated as an intervention. The outcome variable is examined two times by using a self-administrative questionnaire: (1) before the intervention that supports the basic psychological needs, (2) after the reading activity was immediately ended. Basic psychological needs were examined before and after the intervention as a manipulation check.

### *1. Participants*

27 RUPP's college students who were year four students and enrolled in a course of Community Psychology in the first semester of academic year 2021-2022 were invited as participants in this study. Among those, the number of female participants (23) were predominant male participants (04).

Purposive sampling method was applied to select participants who would be assigned to engage in reading a research article as a small part of the course activities. The invited participants attended a session facilitated in a way that the class behaviors (competence, autonomy, and relatedness) were supported.

### *2. Procedures*

First, the participants were informed in advance about reading activity as part of the course in the course orientation session—November 22, 2021. The course was conducted on Monday every week. Several reading research articles relative to the course topic were provided to the participants a week before the activity. The participants were allowed to download further articles if needed. Participants were required to read those articles before class. A day before the reading activity, the participants were asked to fill in the self-administrative questionnaire covering intrinsic motivation in reading and satisfaction of basic psychological needs via online which consent form was attached at the early section of the questionnaire. Then, they attended the reading session a day after –November 29, 2021.

The reading activity was placed to the class, and the relatedness, competence and autonomy supportive facilitation would be treated. Learning procedures were designed in a way that relatedness, autonomy, and competence concepts were integrated in classroom practices to cognitively, emotionally, and behaviorally support the reading activity of the participants (Appendix 1). Immediately after the session was finished, the same questionnaire of intrinsic motivation in reading and satisfaction of BPN would be administered by the students themselves. Since reading a research article is considered as a difficult task, 90 minutes was given to conduct each session. The levels of intrinsic interest in reading would be compared to investigate their differences in each test-taking phase.

### *3. Measures*

Reading-task focused intrinsic motivation was an outcome variable. It was investigated by using an Intrinsic Motivation Inventory scale (IMI) (McAuley, et al.,1987). IMI measures intrinsic motivation in doing a task was a four-dimensional scale consists of 16 total items such as interest-enjoyment consists of 4 items (e.g. This reading task did not hold my attention.); perceived competence contents 4 items (e.g. I could not read this research article very well.); effort-importance with its 4 items (I did not try very hard at reading this research article.); pressure-tension includes its 4 items (e.g. I felt tense while reading this research articles.). The four dimensions were computed into a single scale with acceptable reliability ($\alpha = .65$).

A 24 items-scale of satisfaction of PBN covered autonomy, competence, relatedness (Chen, et al., 2015) was used to examine the participants' satisfaction of PBN for a manipulating check in this study. In these participants, the reliability of the instrument ($\alpha = .68$) was optimal.

Negatively worded items were rescaled prior to the analysis of the data. A 7 rating scale (1 not at all true to 7 very true) is used to test intrinsic interest and satisfaction of BPN in reading.

Back translation procedures would be applied to translate the original questionnaire which was in English into Khmer language. Before putting the instrument for translation, the researcher adjusts the term "playing basketball"—the originally used term of the scale—to become "reading research article" to suit the activity of this study.

### *4. Data Analysis*

The collected data was cleaned and checked its normality. Then, the mean scores of students' intrinsic motivation in reading in the pre-testing phase were compared to identify the usefulness of intervention to increase or sustain the student's intrinsic motivation in the reading activity. Level of satisfaction of BPN (competence, autonomy, and relatedness) was checked

to reveal whether there is a change in between the pre-reading to post-reading phase. The increase in the mean scores of intrinsic motivation after attending the activity compared to those observed before the intervention showed significantly important intervention which BPNs were supported at while-reading phase.

## C. . Results

This study was to investigate whether the BPN supportive learning facilitation contributed to increasing or sustaining the intrinsic motivation of students who were involved in reading activity.

Table 1. Observed Values of Intrinsic Motivation and Satisfaction of BPNs

| **Values** | **N** | **Pre-reading Phase** | | **Post-reading Phase** | |
|---|---|---|---|---|---|
| | | **M** | **SD** | **M** | **SD** |
| Values of intrinsic motivation | 27 | 64.74 | 7.75 | 74.44 | 10.40 |
| Values of satisfaction of BPNs | 27 | 52.22 | 6.17 | 54.40 | 8.57 |

As shown in Table 1, the average scores (M = 74.44; SD = 10.40) of intrinsic motivation at the post-test phase were increased over 10 units compared to those at pre-test phase (M = 64.74; SD = 7.75). Moreover, a 2-unit change (52.22 to 54.40) in values of satisfaction of BPNs from pre-reading phase to post-reading phase indicated the increase of satisfaction that seemed to be consistent to that of intrinsic motivation.

The above statistic revealed that the increase in values of intrinsic motivation observed after the BPNs in reading were embedded in the reading activity. Statistically, BPN supportive learning environment was salient to development of intrinsic motivation in this study.

## D. Discussion

Intrinsic motivation in reading research articles among these participants was promoted when BPN supportive classrooms were facilitated. This result indicated significant contribution

of BPN support on the students' intrinsic motivation. Although the intensity of motivation and satisfied level of BPNs were not highly observed after the treatment of BPN supports, the researcher considered that the treatment was useful to sustain the students interest when they were challenged with the difficulties in reading (Baard, et. al, 2004). The students kept reading with some remarkable outputs after terminating the class activities. Without sufficient BPN support offered by the class, the students may not enjoy, challenge, and pay attention in such difficult activities, or they just forced themselves to participate in the activity to fulfill the class requirements with dissatisfaction and boredom. The positive intrinsic motivation dimensioned in interest-enjoyment, perceived competence, effort-importance, and pressure-tension (McAuley, et al.,1987) was a power of motivation that inherently attached with the individual learners when he/she engaged the activity.The students who may or may not appreciate and involve to the academic task depended heavily on how much the task responded to their intrinsic preference, reading journals. Intrinsic motivation was rarely observed for complex learning activities such as reading research articles for most of these particular students.

Development of intrinsic motivation is hardly applicable in a short-term learning intervention due to its innateness. However, the teacher needs to develop his/her students in daily classes. As shown in this study result, the integration of positive supports of BPNs in reading can assist the students to regulate their consciousnesses on the required activity and regulate their motivation processes from amotivation (dislike the activity) to intrinsic motivation (like the activities). The students may be satisfied with the reading challenges when they were supported by optimal challenge, feedback that promotes self-efficacy, positive performance feedback because these supports made them feel capable to read the article (Deci et al., 1999). Therefore, they were able to work on it, decided to engage, and continue to finish it. Moreover, when the students were provided opportunities for choices, acknowledged feelings, and offered explanations or

rationales, they would enjoy the class and engage to read until the end of the class (Niemiec & Ryan, 2009). They were satisfied with the task because they were free to work on it. Influenced by collective culture, Cambodian students may be joyful to challenge the complexity of reading articles when they felt that what they were doing was being cared for and mutual respected (Ryan, 1995).

## E. Conclusion

Developing and sustaining intrinsic motivation in doing academic tasks were important psychological aspects for students' learning. Although the motivation could dramatically emerge in a given sufficient time, the teacher has to alter the mindset of students who were not intrinsically motivated to help his/her students learn better. Rather to treat the students with rewards and effective teaching methods, the teacher may organize class environments in which competence, autonomy, and related supports are integrated. These climates can partially build up students' satisfaction of their psychological needs which in turn develop intrinsic motivation.

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