

Promoting the Internalization of Regulation in the Conceptual Framework of Self-determination Theory

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Abstract

In the field of educational psychology, the concept of self-determination theory (SDT) was launched in the mid-1980s and has been applied in many educational fields, including language learning. The main concept of SDT postulates that the way people regulate their behaviour can be shaped by external factors, such as rewards, but that their ability to regulate their behaviour can subsequently become internalized. In this paper, the structure of different types of regulation, three major psychological needs to maximize students' motivation and practical ideas for practitioners to utilize in order to promote students' regulation are investigated.

keywords : academic learning, motivation, self-determination theory
self-determination theory, motivation, academic learning

1. Introduction

In the field of educational psychology, the self-determination view of intrinsic motivation has been postulated by Deci and Ryan (1985) based on the view that humans have a need to be autonomous and engage in activities because they want to (Pintrich and Schunk, 1996). The concept of self-determination theory (SDT) is relevant in designing teaching strategies for students, because SDT describes the graded internalization of external motives. In other words, it treats motivation as a process in the same way as the theory of self-regulated learning. Since SDT analyses the detailed levels and types of self-regulation in motivation, SDT can be considered as a useful construct when designing EFL (English as a foreign language) teaching strategies to promote student motivation at the many different stages of motivation, not only for those students who are already motivated, but also for those who have little interest in learning. In this paper, the detailed structure of different types of regulation and the three psychological needs to maximize students' motivation are investigated followed by an examination of practical ways to promote the internalization of regulation.

2. The structure of different types of regulation

2.1. Intrinsic versus extrinsic view of motivation

The relatively comprehensive work of SDT was launched in the mid-1980s (Deci & Ryan, 1985). Since that time, research on SDT has developed in many fields such as sport, education, and healthcare. Earlier studies of motivation primarily focused on two types of

motivation: intrinsic and extrinsic motivation. The tendency had been to treat these two types of motivation as a dichotomy (Vallerand, 1997). Intrinsic motivation focuses on pleasure and satisfaction (Guay, Boggiano, & Vallerand, 2001). When students are intrinsically motivated, they do the task simply because they find it interesting and enjoyable. Extrinsic motivation focuses on outcomes that are separable from the action itself (Ryan & Deci, 2002). When students are extrinsically motivated, they do the task because they have to submit the work assigned by the teacher or because they want to get good marks on the test, for example.

A large body of research has shown that intrinsic motivation results in high performance, longer persistence, and a high quality of learning, so it has traditionally been treated as an important phenomenon by educators (Ryan & Deci, 2000). In contrast to the perception of intrinsic motivation, extrinsic motivation has traditionally been characterized as an insufficient, and sometimes inappropriate, type of motivation for students. Extrinsic motivation has been characterized as being non-autonomous. Research shows that extrinsic motivation negatively affects intrinsic motivation (Deci & Ryan, 1985).

2.2. Different types of regulation in motivation

Unlike the early view of intrinsic versus, the extrinsic motivation SDT view of extrinsic motivation is more differentiated. It proposes varied types of extrinsic motivation. Some represent insufficient forms of motivation and others represent more active and powerful methods to promote student learning. This view is based on the organismic integration theory (OIT) which claims that people naturally integrate their ongoing experiences (Ryan & Deci, 2002) into their approaches to learning. The concept of OIT postulates that the way people regulate their behaviour can be shaped by external factors, such as rewards, but that their ability to regulate their behaviour can subsequently become internalized. This process can be seen as a development of autonomy.

SDT views this phenomenon of internalization and transformation of external regulation into self-regulation as a continuum, rather than as a dichotomy between extrinsic or intrinsic motivation. This point is very important in investigating how students can be helped to develop motivation and self-regulatory behaviour in their language learning.

Deci and Ryan's concept of extrinsic regulation explains the development and dynamics, as well as the process of motivation. They argue that there are four different types of extrinsic regulation: external regulation, introjected regulation, identified regulation, and integrated regulation (see Figure 1). Each type of regulation differs in the degree to which people experience autonomy. Their model also includes "amotivation", which refers to a lack of motivation.

Let us now look, in detail, at amotivation, external regulation, introjected regulation, identified regulation, and integrated regulation. I will then assess the extent to which the students in Japanese EFL settings are likely to exhibit each of these five characteristics.

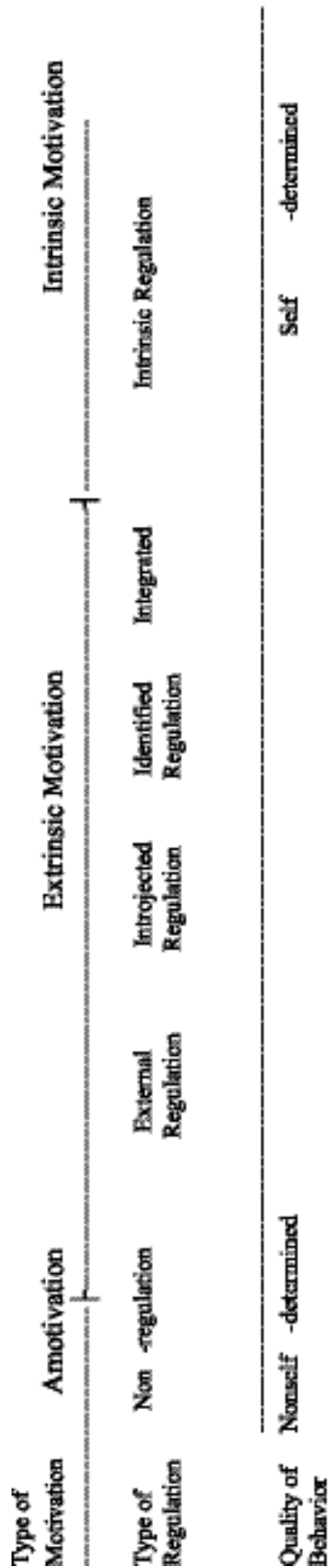


Fig. 1. The Self-determination continuum, with types of motivation and types of regulation.
 Material drawn from Ryan and Deci (2002, p. 16).

Amotivation

Amotivation (on the far left of Figure 1) refers to the lack of intention to act. When students are amotivated, they do not work at all or are completely passive and work in the ways that they are told to with no sense of intention to work. Many teachers may have experienced the situation where a student just sits in front of them, without paying attention to the teacher or the class events at large.

Amotivation is believed to be caused by the student's feeling that she or he is unable to achieve desired outcomes, a lack of competence or not valuing an activity (Ryan & Deci, 2000). It may be caused by the sense of resentment towards the teacher's personality, or teaching style, especially when students are still at an immature stage. For example, imaginary student Ichiro (a Japanese junior high school student) might not do his English homework at all for several reasons. One reason is the fact that he does not understand the content of the task. At first, he did understand the meaning of the text and the task, but he did not realize the value of doing it, so he left it unfinished. After ignoring several homework assignments, he realized that he was not able to understand the content of the task. Mr. Tanaka, the English teacher, kept accusing Ichiro of not doing his work, so Ichiro started to dislike Mr. Tanaka. He decided not to listen to Mr. Tanaka and did not do any work in his class. The relationship with Mr. Tanaka worsened. In this case, the student is amotivated.

External regulation

External regulation is the least restrictive form of extrinsic regulation. Externally motivated behaviours are performed to satisfy external demand or obtain an externally imposed reward contingency or a socially constructed contingency. These externally imposed contingencies include avoidance of a scolding, or receipt of tangible rewards, such as food, stamps on the logbook for the work, or money. Socially constructed rewards include praise, awards, or avoidance of disapproval (Deci & Ryan, 1985). For example, imaginary student Ichiro (the boy mentioned previously) might be scolded by his parents about his behaviour at school. The parents would be called by the school and informed that Ichiro must leave school unless he changes his attitude and actions at school. Understanding this punishment, he might reluctantly finish his homework. His intention to do his work would only depend on the idea of avoiding punishment and nothing more. For example, he might merely write down an answer he thinks is correct and not check it with his answer key. He might not review his work, because he does not have any intention to master it. For some parts of his homework, he might even copy the answer key into his notebook so he could finish the work quickly. In this case, Ichiro would be “externally regulated”.

In the actual EFL settings, it is presumed that some of the students will have this type of motivation at the beginning. This assumption is based on my own knowledge of Japanese society and of the ways in which students attending the university have been brought up.

Introjected regulation

Introjected regulation is the second type of extrinsic regulation (next to external regulation in the Figure 1). Even though the development of regulation is not necessarily a continuum in nature, real internalization can occur from this type of regulation. In this sense, introjected regulation and two other aspects of regulation (regulation through identification and integrated regulation) can be differentiated from external regulation. This kind of regulation occurs when teachers are able to make students feel genuinely proud of their achievements or ashamed of their failures. It has a strong affective element and the idea is that it helps students reflect on their own development.

According to Ryan and Deci (2002), there are three types of internalization that differ in the degree to which the regulations become integrated with a person's sense of self. A person's sense of self is interpreted as self-esteem and ego enhancement. With *introjected regulation*, people take in an external demand or regulation and act with the feeling of pressure to avoid guilt, shame or self-derogation, or to obtain a sense of pride or maintain self-esteem. This differs from the external regulation described previously in that a sense of self is related to people's behaviour. They act in response to external demands or pressure and also in response to internal pressure. Although the regulation is internal to the person, it is still controlling. People take in an external and internal control without feeling a sense of ownership of self. In this sense, introjected regulation is still a partially internalized regulation.

Ichiro (mentioned previously) might have recently begun to study at home regularly. His English teacher might have changed, from Mr. Tanaka to Mr. Sato, and Mr. Sato might praise Ichiro when he submits the daily homework. For this reason, Ichiro might like Mr. Sato, and begin keeping the study log that Mr. Sato has recommended to him. Mr. Sato might then put a silver stamp in the log when Ichiro finishes the homework each day. Ichiro might then feel that he is a failure or a weak person on the occasions when he does not earn the stamp. Equally, he might feel very happy when he sees the row of silver stamps without a gap, so he might try to finish his work. However, Ichiro may admit that he still copies the answer key sometimes, especially when he has plans to go out with friends.

It is unlikely that all of the students in university EFL settings naturally exhibit this kind of motivation. My reason for saying this is that the students who come to my classes have usually repeatedly failed their language classes in high school and often lack very basic grammatical knowledge. They do not tend to be hard working and appear to have developed a negative attitude towards learning.

Identified regulation (Regulation through identification)

Identified regulation (regulation through identification) is a more autonomous, or self-determined, form of extrinsic motivation. With regulation through identification, people have identified with the personal importance of an act and have accepted its regulation as their own. The true ownership of the act has shifted from external demands to the self, thus this

regulation represents an important aspect of the process of transforming external regulation into self-regulation.

With Identified regulation, people take in an external demand, or an act, and value it as personally important. Then they engage in the act with a greater sense of autonomy and do not feel pressure (either external or internal) or control to perform the behaviour. Although it is relatively autonomous, or self-determined, regulation through identification is not a complete form of internalization of regulations, because some identification can be relatively compartmentalized or separated from one's other beliefs and values (Ryan & Deci, 2002).

Let us imagine that the aforementioned Ichiro has recently stopped copying the answer key to his notebook for his homework. His copying may have ceased because he has begun to think about the meaning of the work and realized that it is good to master how to read and write in English. He may have started to use the Internet and found that it is more enjoyable if he can read the web sites that are written in English. In addition, he may have found that the more he memorizes words and phrases in English, the easier the answers become for the questions in the homework. His new teacher, Mr. Sato, may have noticed an improvement in Ichiro's English and praised him.

Integrated regulation

Integrated regulation is the most autonomous, or self-regulated form, of extrinsically motivated behaviour. Integration occurs when identified regulation has been evaluated and endorsed with values, goals, and needs that are already part of the self (Ryan & Deci, 2002). With integrated regulation, people will self-examine the external demand or act and bring new regulations into congruence with their other values and needs. Although integrated regulation shares many qualities with intrinsic motivation, such as being autonomous or not being controlled, integrated regulation remains as extrinsic regulation because behaviour is still being carried out for its external value, not for its inherent interest and enjoyment.

The aforementioned Ichiro, who is now in the final year of high school, may be studying English very diligently because English is one of the important subjects for his entrance examination to university. He may now have a clearly formed goal of becoming a doctor. After graduation, he may want to train in a medical specialty in an English-speaking country, so English may be very important for his future. For his short-term goal of entering a university, he may have made a detailed study plan, including English. Through his studying, which was originally done for the sole purpose of passing an entrance examination, Ichiro may have discovered “colloquial” English. Although he really likes this kind of English and finds it “intrinsically motivating”, he realizes that it will not help him get through his examination. Here therefore focuses on “formal” English. To help himself keep up his concentration, he continues to use the reward system that his old teacher has set up for him in Junior High School. He continues to award himself treats at the end of every chapter in his textbook.

In the Figure 1, intrinsic motivation is placed at the far right end to show that intrinsic motivation is a prototype of self-determined behaviour. However, this does not mean that as extrinsic regulation becomes more internalized, it is transformed into intrinsic motivation. In addition, it is important to know that SDT does not suggest that it is a developmental continuum, nor that people should progress through each stage of internalization. Rather, SDT suggests it is possible for people to take in a regulation at any point along this continuum, depending on the relevant prior experience and situational factors (Ryan & Deci, 2002).

2.3. The importance of the most autonomous type of extrinsic regulation

SDT recognizes that intrinsic motivation is the prototypical and most autonomous form of regulation. However, I have chosen to recognize intrinsic motivation merely as one of the forms of self-regulation, which is separable from the most autonomous form of extrinsically regulated behaviour. In other words, intrinsic motivation is not necessarily valued as the most desirable form of motivation for successful learning. There are two reasons for this. One is that intrinsic motivation does sometimes negatively affect the learning goal the student must achieve.

In Ichiro's case, as integrated regulation indicated, his intrinsic motivation to study colloquial English may negatively affect his study plan. He has to forget his intrinsic motivation for the external purpose of entering a university. A second reason is that it is not practical to aim at obtaining intrinsic motivation for all the subjects studied in the school setting. Each student may have a different interest, however, they have to study all of the subjects according to the requirements.

The view that intrinsic motivation is not necessarily the most desirable motivation is supported by Koestner and Losier's research (2002). They conducted long-term longitudinal studies with students who were making a transition at the end of high school or the end of college. Participants' reasons for being in school were assessed, along with measures of school satisfaction and general psychological distress. Self-regulation is assessed by asking participants to rate their reasons for participating in an activity. Introjected reasons reflect pressure and compulsion, whereas identified reasons reflect consideration of important personal values and goals (“I go to school because this will help me make a better choice regarding my career orientation”); and intrinsic reasons reflect a natural inclination to pursue activities.

They found that intrinsic and identified regulation is conducive to positive outcomes, such as active information processing, the experience of positive emotions, and successful adaptation to school transitions. They also found that only “motivation through identification” was consistently associated with a higher level of psychological adjustment as students made school transitions. They concluded that with activities that are likely to be perceived as quite uninteresting, it is likely that the extent to which individuals have consciously integrated the value of activities into their personal goals and values will be more important than their

intrinsic interest in the domain. They also suggest that “someone who is highly identified towards a given domain is likely to persist at even uninteresting activities within the domain, whereas there is a risk that someone whose regulation is exclusively based on intrinsic motivation will invest themselves only in those domain-relevant activities that are interesting to them” (p. 114).

This applies to Ichiro's case as well. Although he is intrinsically motivated in learning colloquial English, his integrated regulation towards study for the entrance examination is more reliable and more beneficial to his goal. Vallerand, Pelletier & Koestner (2008) also claim that when the task is less interesting, intrinsic motivation becomes less relevant, and the most self-determined forms of extrinsic motivation leads to the most positive outcomes. In line with this study, Wilson, Rodgers, Blanchard & Gessell (2003) found that altering dysfunctional behaviours might be accomplished through the development of identified regulation in the field of physical education. They found that *identified regulation* is associated with positive motivational consequences in the form of more frequent exercise behaviour, positive attitudes towards exercise, and overall physical fitness.

In the field of foreign language learning, Nakata (2006) claims that extrinsic motivation should not be regarded as an antagonistic counterpart of intrinsic motivation and that extrinsic motivation is not necessarily a negative factor that diminishes intrinsic motivation. He believes that both factors coexist as motivation, and sometimes it is difficult to know whether a person possesses intrinsic motivation or extrinsic motivation, or both.

2.4. Autonomous motivation versus Controlled motivation

Recent research on SDT (Vallerand, Pelletier & Koestner, 2008) has postulated the fact that most self-determined types of motivation lead to the most adaptive outcomes, regardless of the distinction between intrinsic or extrinsic motivation. This claim is well summarized as:

...the most positive outcomes are derived from the self-determined types of motivation (i.e., intrinsic motivation, integrated and identified regulation), while the less self-determined forms of motivation (introjected and external regulation) are either unrelated or negatively related to adaptive outcomes (p. 259).

The concept within SDT around internalization and types of regulation has shifted the distinction from intrinsic versus extrinsic to autonomous versus controlled motivation.

The effectiveness of different types of regulation (autonomous and controlled motivation) on the academic outcomes has been investigated by Ratelle, Guay, Vallerand, Larose, and Sencal (2007). They had three different student's motivational profiles for high school students:

- (a) a controlled profile (i.e., highly externally controlled);
- (b) a profile characterized by moderate levels of both autonomous and controlled motivations; and,
- (c) a profile characterized by high levels of both autonomous and controlled motivations.

They found that the profile characterized by high levels of both autonomous and controlled motivation was most adaptive to academic outcomes. This profile was associated with positive school outcomes, such as high persistence and achievement, low absenteeism, and high cognitive and affective functioning. It is interesting to know that they did not find an autonomous motivational profile in this high school population.

Ratelle et al. (2007) explain that high school students tend to develop controlled forms of motivation, because the high school environment entails more extrinsic controls and rigid constraints. This finding is relevant to the university EFL settings because students are in a similar environment, where they are also exposed to relatively controlled and rigid constraints. They must get a credit for the language class to meet the standard to be promoted to the next grade or to graduate. They were not allowed to be absent for more than one third of the total classes. Knowing that Japanese high school students work under similar conditions, it is predicted that both autonomous and controlled motivations are related positively to the academic outcomes for Japanese university students.

Ratelle et al. (2007) conducted a similar study for university students. These students had three profiles:

- (a) a high autonomous /high controlled profile;
- (b) a low autonomous/low controlled profile; and,
- (c) an autonomous profile.

They found that achievement levels were similar for those who have only autonomous motivation and those who have autonomous and controlled motivations. However, they found that the “autonomous-only” profile had a stronger association with academic persistence. Their findings seem to suggest three possibilities:

- (1) for students to develop controlled motivation or autonomous motivation, to some extent, depends on the characteristic of educational environment (rigid, or autonomy-supportive);
- (2) when the environment permits, students who endorse more autonomous motivations are the most persistent in their learning; and
- (3) both autonomous motivation and combined motivation (autonomous and controlled) are adaptive to academic achievement.

3. Basic psychological needs in internalization of regulation

Promoting autonomous motivation (intrinsic, identified and integrated motivation) rather than controlled motivation seems to be the central issue for educators in terms of leading students to higher achievements and longer persistence in academic tasks. The next question is how we can promote students' internalization. Many SDT researchers suggest important requirements or social conditions for the successful promotion of internalization. They propose that conditions be supportive of the “basic psychological needs” (Deci & Ryan, 1985; Ryan & Deci, 2002) that would facilitate internalization and integration. There are three basic psychological needs: relatedness, competence, and autonomy. SDT proposes that these are necessary conditions for the growth and well-being of people's personalities and

cognitive structure.

Relatedness

SDT postulates that people have an innate requirement to feel connected to others, to be cared by or care for others, and to have a sense of belonging with individuals and the community. A person's need to feel oneself as being related to others is not necessarily aimed at attaining a certain outcome or a status related to the psychological sense of being with others in a secure communion or unity (Ryan & Deci, 2002). Although it is not directly related to the internalization of motivation, such internalization is very difficult to achieve without it. In other words, support from significant others is a vital part of the process.

Competence

SDT postulates that people have an innate need to be effective in their interactions with the environment (Deci & Ryan, 1985). The need for competence leads people to seek and conquer challenges that are optimal for their capacities. In addition, interactions with stimuli that are challenging promote the acquisition of competence. People accumulate a sense of competence after their interaction with the environment, exploration, learning, and adaptation. In the field of education, this is sometimes referred to as “a sense of achievement”, “a sense of mastery”, or “a sense of efficacy”. Competence, when used in SDT, does not mean an attained skill or capability, but a self-sense of confidence and effectiveness in action (Ryan & Deci, 2002).

Autonomy

SDT postulates that people have an innate need to be the perceived origin or source of their own behaviour. When people are autonomous, they act from interest or integrated value. They behave as an expression of the self, feeling both initiative and value with regard to themselves, even if those actions are influenced by outside sources. Although autonomy is often confused with independence, SDT considers there is no antagonistic relationship between autonomy and dependence. People can autonomously enact values and beliefs that others requested, provided that people endorse them (Ryan & Deci, 2002).

SDT clearly states that there are many motives to satisfy these needs, but there are many motives that do not lead to people's well-being. In other words, attaining one's goals efficaciously, and even achieving desirable performance, sometimes does not ensure one's psychological well-being. In that case, even if a person achieves a particular goal, with an impaired sense of well-being, it is doubtful whether that person will continue towards the successful achievement of their next goal.

According to SDT, people require regular experience of autonomy, competence, and relatedness to maximize their motivation. In other words, people need to feel that they are good at what they do or at least can become good at it (competence); that they are doing what they choose and want to be doing, that is, what they enjoy or at least believe in (autonomy); and that they are relating meaningfully to others in the process. That is,

connecting with other people (relatedness) (Sheldon & Krieger, 2007, p. 885).

4. Promoting the internalization of regulation

4.1. Conditions supportive of the basic psychological needs

Given the significance of people's psychological needs and the importance of the internalization of regulation, the practical issue concerns how to promote internalization of regulation while satisfying those three basic needs: relatedness, competence, and autonomy.

Many SDT researchers have revealed the importance of autonomy and competence support (autonomy, competence) by significant others (relatedness). Deci, Eghrari, Patrick and Leone (1994) suggest three contextual events that promote the internalization of regulation: (a) providing a meaningful rationale; (b) acknowledging the person's perspective towards the behaviour; and, (c) conveying choice rather than control.

Providing a rationale

Providing a rationale which is meaningful to the target person helps him or her in understanding why a behaviour is important and valuable to him or her. For example, a meaningful rationale of material management for a boy who misplaces his worksheets might be, "if you put the worksheet into your English file now, then you can easily find the sheet when you want to use it next time." Sometimes it is still difficult to act as requested, especially when it is not interesting, even if a meaningful rationale is provided. In such cases, people may have internal conflicts with their inclination resulting in negative feelings such as pressure, tension, or anxiety.

Acknowledgements

By demonstrating the acknowledgements of the apparent conflict between the request and the inclination, it is possible to convey respect for the person's inclinations and the right to choose. This is helpful in that it alleviates negative feelings and allows him or her to understand that the requested behaviour can harmoniously coexist with other inclinations.

Choice rather than control

The meaningful rationale and acknowledgement of personal feelings should be presented in a way which permits people to feel choice about doing the activity and not in a controlling and pressuring way. If a teacher or a parent requests an activity using "should", "must", and "have to", the communication will be functionally controlling and both internalization and integration will be impaired. Instead, if a teacher or a parent allows a student to feel choice, minimizing pressure, then the communication will be autonomous support, thus facilitating internalization. For example, if a student does not like to put worksheets provided by a teacher into her folder, the teacher or the parent might say, "if you put your papers into your file now, rather than putting them under the desk, you might be able to save a lot of time finding them whenever you want to use it next time." Then the teacher or the parent can

add, “I know it is not fun for you to bother doing it now.” And say, “I was like you when I was at your age. I wish I had known about the difficult but very useful skill at that time.”

Deci et al. (1994), after experimental research, found that contexts that were supportive of autonomy promoted integration, whereas those that were non-supportive of autonomy promoted introjection. In addition, they found that controlling contexts can promote internalization, but there will be less internalization, on average, than in the autonomy-supportive contexts. The internalization that does occur is likely to be more conflicted (i.e., introjected).

4.2. Promoting the internalization in school settings

Numerous studies have been conducted to reveal the characteristics of necessary support to promote the internalization of regulation. For instance, Chirkov and Ryan (2001) found that relationships between perceived autonomy support and well-being and school motivation were evident in both Russian and U.S. students. Deci, Schwartz, Sheinman and Ryan (1981) assessed the teachers' orientation towards controlling versus supporting autonomy in children. They found that children in classrooms with autonomy-oriented teachers saw their teachers as more supportive of autonomy. As a result, the children were more intrinsically motivated to learn, perform better, and have higher levels of perceived competence. This relationship was observed within the first two months of the school year and remained essentially constant over the remainder of the year.

Sheldon and Krieger (2007) conducted a three-year study of law school students. They found that students who rated faculty within their program as more controlling experienced declining psychological need satisfaction (autonomy, competence, and relatedness). For example, this led to a reduced well-being, poorer grade performance, and less self-determined motivation to pursue the legal career. Based on the previous research (Reeve, Bolt, & Cai, 1999; Flink, Boggiano, & Barrett, 1990; Reeve, Jang, Harder, & Omura, 2002) investigated teaching behaviours characterized as autonomy-supportive. According to the investigation, autonomy-supportive teachers' instructional behaviours included:

- Listening more
- Spending less time holding instructional materials, such as notes or books
- Giving students time for independent work
- Giving fewer answers to the problems students face

Autonomy-supportive teachers' conversational statements included:

- Avoiding being directive
- Praising mastery
- Avoiding giving criticism
- Giving answers less often
- Responding to student-generated questions
- Communicating statements rich in empathy and perspective-taking

Autonomy-supportive teachers distinguished themselves by

- Supporting intrinsic motivation
- Supporting internalizations
- Coming across as less demanding or pressuring

These behaviours are useful in designing teaching strategies that are likely to promote internalized motivation in EFL classrooms.

4.3. Promoting the internalization in homes

A large number of studies have examined the relationships of parents' support with children's motivation. When designing teaching strategies for EFL classrooms, it is believed that there is much to learn from the successful (and unsuccessful) support of parents for children's motivations, academic achievement, adaptation to school and well-being.

Parents' support style and children's behaviour

For children's behaviour, Grolnick, Ryan and Deci (1991) postulate that there are three important motivational inner resources of children: control understanding, perceived competence, and relative autonomy. Control understanding reflects the degree to which children show that they understand who or what is responsible for their important school outcomes. Perceived competence refers to the fact that children can feel they have the competence to perform the behaviour. Relative autonomy refers to the perceived autonomy support from parents.

They found that control understanding and perceived competence are strongly linked with achievement. Also, parents' autonomy support and involvement positively predicted control understanding, perceived competence, and relative autonomy, all of which predicted achievement. Thus, it is important that parents support children so that they can understand who is responsible for the school work and why they are doing it. It is also important that parents support children so that they can feel they are competent to do the work in an autonomy-supportive way.

Imposition of structure as a type of parental support

In terms of the important factors that promote internalization, a slightly different approach from those in school settings is presented by Joussemet, Landry and Koestner (2008). They postulate three important key components of parental support: (a) autonomy support, (b) involvement, and (c) structure. Autonomy support is based on one of the basic psychological needs. Involvement is one of these psychological needs. Both have been examined in the previous studies in school settings.

The introduction of structure as an important parental support is presumably meaningful to the academic settings. Joussemet et al. claim that providing structure is one of the important behavioural controls by parents. It refers to giving clear expectations about appropriate behaviours and monitoring children's behaviour related to those expectations of children's behaviour. Those structures include the following: rules, regulations, guidelines, goals, and

limits. Without structures, it is unlikely that children internalize essential values. They argue it is the imposition of a clear, consistent, and developmentally appropriate structure that makes it possible to encourage children to comply with behavioural limits without negatively affecting children's motivation, as long as the limits are provided with autonomy and in a supportive manner (warm and democratic way). In line with the autonomy support in school settings, they define four ingredients of autonomy support in homes: (1) providing rationale and an explanation for behavioural requests; (2) recognizing the feelings and perspective of the child; (3) offering choices and encouraging initiative; and (4) minimizing the use of controlling techniques.

Joussemet et al. emphasize that autonomy support should not be confused with permissiveness, which means lack of structure or neglect or a lack of involvement. The critical point of successful parental support lies in how structure and involvement are provided by parents. Giving a developmentally appropriate level of structure and parental involvement in an autonomy-supportive way seems to contribute to the most positive child development. Being clear, being consistent, and setting limits in an understandable, empathic manner are the important requirements for autonomy support.

The important role played by the imposition of structure has significant implications to university EFL students, especially those who had repeated experiences of unsuccessful learning. They need to cope with academic tasks that may be uninteresting to them. It is believed that a certain kind of supportive structure is needed for those students to progress their learning.

The effect of rewards in internalization

With experimental research, the effects of using rewards versus providing autonomy support when promoting children's involvement with an uninteresting, but important activity was examined by Joussemet, Koestner, Lekes, and Houliort (2004). They defined autonomy support as encouraging initiatives, and providing meaningful rationales for requests, as well as minimizing controlling language. They found that the autonomy-supportive approach led to more enjoyment, internalization of the task's value, and more integrated functioning. They also found that contingent rewards created an almost instant detrimental effect. They argue that the use of rewards may interfere with internalization of the activity's value and impede self-regulation. In other words, rewards may act as one form of the external control, which prevents children from learning to integrate new rules or behaviour into their sense of self.

This finding is also important for academic contexts, because the risk of rewards became clearer. If the goal of the educator is the compliance towards rules, rewards may be effective because it can control behaviour very quickly. However, if the goal is to promote students most self-determined regulation or most autonomous motivation, educators must keep in mind that rewards are powerful and risky tools that may prevent students from developing the internalization of regulations.

Parents' support style and adolescent's behaviour

The relationship between parents' autonomy support and adolescent behaviour has been investigated by Williams, Cox, Hedberg, and Deci (2000). They examined adolescents' high-risk behaviour as a function of their extrinsic aspirations of wealth, fame, and image relative to their intrinsic aspirations for growth, relationships and community. They found that autonomy-supportive parental environments are associated with adolescents having stronger intrinsic life value (growth, relationships and community) than adolescents having extrinsic life value (wealth, fame, and image), because autonomy-supportive parents' facilitate adolescents in experiencing satisfaction of their basic psychological needs (autonomy, competence, relatedness).

Furthermore, the results indicated that adolescents having strong extrinsic values are associated with their engagement in more high-risk behaviours. They suggest that adolescents holding strong extrinsic values were not supported to look into their own basic needs, rather than looking outward (peer pressure to use drugs, tobacco, and alcohol), because of the low autonomy-supportive parents. This study implicates the importance of autonomous support in terms of encouragement for students to look inside and think about the value of behaviour themselves, rather than to simply obey the external rules, pressures or forces.

Developmental outcomes of control

The risk of diminishing people's ability for inner thinking, as presented previously, has also been mentioned by Grolnick, Ryan and Deci (1991). They found that parental emphasis on obedience, compliance, and the use of power-assertive techniques leads children to be less social, more hostile and less well-adjusted. They postulate that autonomy-supportive parents help children to develop a sense of themselves as the locus of initiation of their actions, which allows them to perceive more autonomy, more competence, and to gain a higher control understanding (i.e., an understanding of who and what is responsible for the outcomes of their behaviour).

5. Conclusion

I have investigated the conceptual framework of self-determination theory with its practical application to the university EFL setting in mind. The view of motivation as a process (and its developmental nature) in the SDT framework can be seen as a relevant concept for students, especially those with a limited level of interest towards language learning or academic tasks in general, since classroom practitioners are able to design their teaching strategies based on the belief that students can and will develop their motivation when appropriate support is provided. SDT postulates that conditions supportive of the "basic psychological needs" (Deci & Ryan, 1985; Ryan & Deci, 2002) are essential in facilitating the internalization of regulation. As many SDT researchers have revealed, appropriate autonomy and competence support by significant others should be provided in classroom settings. Therefore, teaching strategies should be designed that provide relatedness with the instructor or other students, promote students' sense of competence or self-efficacy, and

provide autonomous learning environment in order to support students' internalization of regulation.

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