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Early years education: are young students intrinsically or extrinsically motivated towards school activities? A discussion about the effects of rewards on young children's learning

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Abstract

Rewards can reinforce and at the same time forestall young children's willingness to learn. However, they are broadly used in the field of education, especially in early years settings, to stimulate children towards learning activities. This paper reviews the theoretical and research literature related to intrinsic and extrinsic motivational theory, with particular focus on the concept of rewards, discussing how this theoretical framework explains children's learning and attitudes. It argues that rewards usually have a detrimental impact on young students' learning and behaviour but in some cases can contribute beneficially to children's willingness to learn.

Keywords: early years education; extrinsic motivation; intrinsic motivation; learning process; rewards.

Introduction

Intrinsic motivation is a cornerstone of the learning process. Students who are intrinsically stimulated to learn participate actively in academic tasks. Researchers such as Deci et al. (1999, 2001) have verified the perception that when people are internally stimulated to learn they gain deeper understanding of new constructs. However, there is a debate whether or not external motives negatively affect intrinsic motivation to learn. Whereas Deci et al. (1999, 2001) argue that rewards have a negative impact on students' willingness to learn, Cameron & Pierce (1994: 397) strongly disagree with this, arguing that 'teachers have no reason to resist *implementing incentive systems in the classroom*'. This paper discusses how the existing empirical evidence relating to intrinsic and extrinsic motivational theory interprets students' willingness to learn in early years settings. Drawing on theoretical and research literature, it attempts to answer the question whether or not rewards have deleterious effects on pupils' learning in this area. It argues that rewards have a negative outcome on students' intrinsic motivation to learn in early years settings but in certain circumstances may contribute positively.

A significant motivation for selecting the early years settings is the recognition that this context is a key influence on children's future academic performance. Young students become familiar with academic constructs and have the opportunity to develop a lifelong love of learning activities. Craft (2002) places great emphasis on the early years curriculum, stating that it promotes creativity and improves children's intelligence. Siraj-Blatchford et al. (2008) agree with this, noting that early years education equips young students with the necessary skills to begin primary school. While early years settings are an important context within which to examine intrinsic and extrinsic motivational theory and learning, there is a lack of empirical studies in this area. Therefore, this paper discusses the existing empirical evidence from different contexts, linking some of their general issues to early years settings.

Motivation to learn: the theoretical framework

The general concept of motivation is strongly related to conscious or subconscious reasons that explain people's choices. According to Pintrich (2003: 669) '*the term motivation is derived from the Latin verb movere, which means to move. In other words, motivational theories attempt to answer questions about what gets individuals moving (energization) and toward what activities or tasks*'. Accordingly, motivational researchers seek to determine how humans justify their actions. Motivation is not a straightforward concept with simple parameters. Leo & Galloway (1996: 36) characterise it as an extremely complex construct, which they liken to 'a coat of many colours'.

Motivational theorists can adopt different theoretical frameworks to explore people's behaviour. The focus of this paper is the framework of intrinsic and extrinsic motivational theory. The next section analyses the theoretical framework of intrinsic and extrinsic motivation to learn, and the concept of rewards.

Intrinsic motivation to learn

Researchers agree that intrinsic motivation promotes students' willingness to learn. According to Covington & Müeller (2001: 163), '*intrinsic motivation has been defined variously as a tendency to engage in activities for their own sake, just for the pleasure derived in performing them or for the satisfaction of curiosity*'. It correlates with an internal force that triggers people to participate in activities, and this particular force makes students engage actively and look forward to learning new academic concepts.

Dörnyei (2001) supports this, highlighting that intrinsic motivation links to performance merely for the enjoyment of participating in activities. This pleasure is the reason that pupils undertake academic tasks and enjoy every aspect of their activity. Stipek (2002) concurs, adding that people are intrinsically motivated to fulfil tasks by a desire to advance their abilities.

However, when young students participate in academic activities they do not always act according to their intrinsic desires (Urdan & Turner 2005). In some situations, there are external factors that contribute to their willingness to learn. Thus, a clear need is raised to analyse the construct of external motivation to learn.

Extrinsic motivation to learn

Extrinsic motivation has been characterised as the other side of the coin of intrinsic motivation and sometimes there is a harmful notion surrounding this term. Vansteenkiste et al. (2006) define extrinsic motivation as the desire of people to participate in activities in order to gain something different from the task itself. The notion of participation purely for the pleasure of the activity, which exists in intrinsically motivated behaviours, is absent in this concept. Consequently, some researchers argue that it decreases intrinsic motivation because the individual's attitude becomes controlled by the stimulus (Deci et al., 1999, 2001). There is no genuine desire that steers individuals to engage in the activity, and thus there is no deep learning. Stipek (2002: 127) confirms this, noting that '*if learning is perceived as an activity that one does only to obtain rewards and avoid punishment, there is no reason to do it when no rewards are available and punishment is not likely*'.

In contrast to intrinsic motivation, researchers do not agree about the effects of extrinsic motives on students' willingness to learn. Cameron & Pierce (1994) and Cameron (2001) argue that external motives promote children's willingness to learn, and strongly disagree with the perspective that they are harmful to students' intrinsic motivation to learn. Although Ryan & Deci (2000) disagree with this, they suggest that some forms of extrinsic motivation can be internalised and contribute beneficially to humans' autonomy. Sometimes students commence activities because they are extrinsically stimulated to participate and as a result internally stimulated. Ryan & Deci (2000) classify extrinsic motivational styles into four categories whereby pupils begin as externally stimulated and end up being internally stimulated.

In the initial phase, *external regulation*, individuals are controlled by external factors such as rewards. In *introjected regulation*, students begin to internalise the external values but are still controlled by external stimuli. In *identified regulation*, the control of external values and goals starts to be internalised. Finally, in *integrated regulation*, pupils internalise to a high degree the control of external values and goals.

It has to be acknowledged that rewards are the most common form of external motivation, especially in early years settings. This leads us to analyse the concept of rewards, which comprise an important parameter within extrinsic motivation.

The concept of rewards in relation to children's learning

Rewards are a complex parameter within extrinsic motivation. The most important distinction is described by Ryan et al. (1983) in cognitive evaluation theory (CET), where rewards are classified according to individuals' interpretation. They may have an *informational aspect*, which communicates meaningful information to people, or a *controlling aspect*, where this '*communication pressures people toward specific outcomes*' (Ryan et al. 1983: 738). A supplementary distinction has been made between *verbal rewards* and *tangible rewards*. According to Deci et al. (2001), verbal rewards are strongly correlated with positive reinforcement and are commonly interpreted as informational. By contrast, *tangible rewards* are perceived as controlling when they are expected. Ryan et al. (1983) divide the expected *tangible rewards* into four subcategories.

Task-non-contingent rewards go to individuals merely for being present for a task. *Performance-contingent rewards* are conferred for acting according to a specific model of performance. *Task-contingent rewards* comprise engagement-contingent rewards, which are given simply for working at activities, and *completion-contingent rewards*, which are allocated for completing the task.

Therefore, rewards may not be the central problem but the way they are used may have detrimental effects on students' willingness to learn. Furthermore, it has been argued that *interpersonal context* has a significant role in the interpretation of rewards (Deci et al. 1999, 2001; Ryan 2000; Ryan & Deci 2000). This context can be *supportive*, where rewards emphasise the learning procedure and are perceived as informational, or it can be *controlling*, where rewards highlight the implementation of specific rules (Ryan & Deci 2000; Deci et al. 2001).

It is much debated whether or not rewards comprise a negative factor in students' academic performance. Deci et al. (2001) suggest that educators should be extremely cautious when using rewards in the classroom. Cameron (2001: 31) counters that '*the negative effects of rewards were minimal and could easily be prevented in applied settings*'.

Empirical findings (Hausmann & Ryan 2004; Remedios et al. 2005; Marinak & Gambrell, 2008) explain the effects of rewards on students' intrinsic motivation to learn. These findings support the beneficial impact of intrinsic motivation on students' learning and suggest that extrinsic motives have deleterious outcomes on children's willingness to learn. They also suggest that in some situations, such as in the case of proximal rewards, they can have a positive impact. These studies are not directly related to the context of early years education since they all investigated this theory with different parameters and age groups. However, they can usefully be applied to the early years context as they link to similar issues in this area. For example, early childhood teachers use external rewards, such as gold stars or stickers, to control children's behaviour or mobility in order to prevent accidents. In addition, most of the time they can use a proximal reward to motivate children to finish their work or fulfil their tasks properly. Although, everyday experience shows that tangible rewards are a common practice in early years settings, there is a lack of empirical studies in this very important age area that would verify the beneficial or detrimental effects of this practice. In contrast to earlier studies, researchers like Cameron & Pierce (1994) and Cameron (2001) argue that rewards do no harm to the intrinsic motivation to learn. The dispute whether or not rewards have detrimental effects on children's learning demonstrates the complexity of intrinsic and extrinsic motivational theory, especially in early years settings.

There is an assumption, based on anecdotal evidence, that young children are intrinsically motivated to participate in learning activities and that rewards damage their willingness to learn. The dispute about this explains the lack of empirical findings in the early years context. This context is challenging because children are too young to express their feelings explicitly. Furthermore, there are several variables that influence young children's academic performance, such as teachers' role, school ethos, children's background, etc. It can be argued that because it is difficult for researchers to agree about the effects of rewards on children's willingness to learn in the later grades of education, it is even more difficult to investigate this in the demanding context of early years.

The debate began when Cameron & Pierce (1994) suggested in their meta-analysis that educators should implement rewards in order to enhance students' learning. Deci et al. (1999) criticised these findings, on the grounds that there were inappropriate control groups. The debate continued with two more meta-analyses: Deci et al. (2001) concluded that it is better for educators to focus on ways of increasing students' intrinsic motivation rather than focusing on rewards, and Cameron (2001) answered that there is a minor negative effect of rewards, which educators can easily overcome. Comparing these two meta-analyses, it can be argued that both support the beneficial impact of intrinsic motivation on learning. The disagreement demonstrates the complexity of this theory, as different pieces of research produced similar findings but researchers do not agree in their interpretations. This theory becomes even more complicated in the early years context, where the variables are hard to define and control. This debate also explains the lack of empirical findings in the important context of early years education.

Conclusions

This paper has discussed how intrinsic and extrinsic motivation influences students' learning. The majority of the studies discussed support the argument that rewards have an adverse impact on students' intrinsic motivation to learn; however, in some situations, verbal or proximal rewards can contribute positively.

Although there is a lack of empirical studies of this question in early years settings, this discussion shows that these findings may apply in the early years context, as their general concepts correlate with similar issues in this context.

The dispute in the scientific field of psychology of the learner as to whether or not rewards have detrimental effects on students' intrinsic motivation to learn mirrors the complexity of this theory, especially when applied to early years settings. There are similar empirical findings but researchers interpret them differently. The context of early years education is even more challenging, as multiple factors influence children's academic performance. Therefore, the complexity of intrinsic and extrinsic motivational theory and the challenging area of early years explain the absence of such empirical studies.

The early years context is an important element of children's school performance, as it creates a foundation for academic learning habits. Gottfried et al. (2001: 10) support this, stating that '*if one is to intervene to enhance academic intrinsic motivation, it had better be early in a child's schooling*'. This leads us to suggest that there is a significant need for researchers to focus their attention on the effects of intrinsic and extrinsic motivation in the early years context, as this is a key area for investigating children's learning. This paper indicates the positive and negative impacts of rewards on children's learning but also the essential need for further research relating to intrinsic and extrinsic motivational theory in early years settings.

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