

Teachers' instructional humour and its impact on students' learning

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ABSTRACT

The study of teachers' humour as a teaching pedagogy to improve students' learning, known as instructional humour, is a topic that has received little attention in the research literature, particularly in recent decades. The effects of the appropriate use of humour by teachers on students are related to the enhanced recall of content, improved learning outcomes, improved self-motivation to learn, increased class engagement, and generation of a friendly classroom environment. However, not all humour has positive impacts on students and could cause more damage than beneficial situations. This study examines the literature on the use of humour in the classroom, to identify the place of humour in the education field. The benefits and risks discovered, as well as the challenges that teachers face when implementing this methodology, are discussed. The results of this research show that students can accurately differentiate appropriate from inappropriate humour. If teachers are to implement humour as a complement to their classes, they need to know their audience and find ways to use different humour styles that promote learning, instead of aggression or mockery. In conclusion, teachers are free to choose humour as a teaching methodology. There are solid research arguments to suggest that humour in the classroom can promote learning. Nonetheless, teachers need to be aware of using an appropriate sense of humour and be aware of the challenges and risks associated. Finally, there are some suggestions proposed for future studies.

Keywords: Humour; Instructional humor; Students' learning; Teacher; Pedagogy; Classroom; Education

STATEMENT OF AUTHORSHIP

Except where reference is made to the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis submitted for the award of any other degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

Claudia Vanessa Rojas Medina

A handwritten signature in black ink, appearing to read 'Claudia V. Rojas Medina', written in a cursive style.

Signed

Date: 30 September 2016

CHAPTER 1: INTRODUCTION

1.1. Context of the study

As a Psychology professional, I have a special interest in identifying whether there are techniques or methodologies that can better promote learning in students. Due to this interest, many people believe that I completed my undergraduate studies in Education, but I did not. I completed my undergraduate studies in Psychology, but I have been working in the education sector ever since I finished my studies, combining my interests in both Psychology and Education. During my years as a Psychology student, I was amazed by the results that the therapeutic use of humour could have in people who had undergone traumatic lived experiences or who deal with depression or anxiety. This interest has continued as I have worked as an Educational Psychologist in the Pedagogical Department in a private school in Peru. Thus, I have developed a curiosity for finding out whether the use of humour inside the classroom could also improve learning. I am intrigued by how humour can shape the attitudes students have towards the learning experience. This circumstance has led me to the present research and my aim to identify the link between two psychological phenomena: humour and learning.

To give a wider frame of my interest, I need to come back to my origins. I was born and raised in Peru, a country that is slowly developing in the education field. I believe I am lucky as I am one of those who had the opportunity to access private education in both, university and school, which is not very common. In Peru, the betterment of teaching methodologies and teacher preparation has not been a focus for a considerable period. Instead, the focus has been on increasing the percentage of the gross domestic product (GDP) invested in education and facilitating access to education. Poverty levels remain significantly high, and many people still do not have access to education. The policies in curriculum development and equal opportunities for all are still in the process of being implemented. Therefore, investigating and implementing innovative teaching methodologies for students are of great benefit in Peru.

Much effort needs to be dedicated to making sustainable changes for future generations. Due to the social, pedagogical and economic imbalances, I feel compelled to make a small but significant contribution when I finish my degree and go back to my country. That is the reason for undertaking a Master's in Education; to acquire an extensive comprehension of the field and to implement better methodologies of teaching and learning. Every person is unique in the way they perceive the world around them. This study does not aim to develop a 'one size fits all' method. On the contrary, it aims to discover whether humour is beneficial for learning for some students, and what are the conditions under which it should be used, as well as the embedded risks.

Personally, before beginning this research, I was looking to find information that could exclusively highlight the benefits of using humour in the classroom. Nonetheless, there are some studies that suggest that using humour as a teaching methodology does not impact significantly on the learning and recalling processes of students, in contrast to instructing a normal class without humour, and that there are some styles of humour that are completely inappropriate for use in class. Historically, using humour inside the classroom to promote learning, known as Instructional Humor, has been considered a useful tool for some researchers (Wanzer, Frymier & Irwin, 2010; Wanzer, Frymier, Wojtaszczyk & Smith, 2006; Ziyaeemehr & Kumar, 2014). These researchers suggest that instructional humour promotes cognitive retention, critical thinking, and creativity (Chabeli, 2008; Parrott, 1994).

Researchers have explained why people find certain communication styles humorous and have theorised about the origins of humour (Berlyne, 1960; Booth-Butterfield & Wanzer, 2010; Gruner, 1978; Morreall, 1983). These theories have established the foundation for humour research. However, these theories fail to explain the connection between instructional humour and learning. Wanzer et al. (2010) developed the instructional humour processing theory (IHPT) to explain how instructional humour can help in the learning process. They suggest that learning takes place when students can understand and resolve the humorous message. When students fail to do so, that is when confusion happens. On that account, it is indispensable to consider two

important features of humour: relevance and appropriateness. These two features will be explained later in the present study.

As my investigations continued, I discovered that not all humour has a positive impact on students; and contrary to what I believed, it could cause more damage than benefit in certain situations. Hence, this research has been an ‘eye-opening’ journey, which has allowed me to discover my ‘teacher - researcher bias’ and has taught me about several aspects of humour that I would have never considered in the earlier stages of my investigation.

1.2. Motivation for studying the link between humour and learning

Research suggests that instructional humour has a direct impact on three major areas: the learning and recalling processes; the students’ motivation; and the development of a friendly environment in the classroom (Banas et al., 2011; Garner, 2006 Nasiri & Mafakheri, 2015). Using humour inside the classroom to promote learning is a theory that was proposed approximately 40 years ago (Banas et al., 2011). Around the mid-1980s several studies highlighted the impact that using humour inside the classroom could have in promoting students’ learning processes. However, over the years, the research focusing on humour and learning has decreased. Most of the literature revised in this research is quite old and out-dated. The low replication of early studies in the field of humour and learning is a gap in the literature that motivated me to research the most recent information on the field. The key question is, therefore, whether instructional humour is relevant for learning.

1.3. Understanding humour in the classroom

To draw a clear concept of the functions of humour in the classroom, it is necessary to give a general explanation of humour theories. According to Booth-Butterfield and Wanzer (2010), there are three theories in humour research that are considered the most influential in the field. The first, incongruity theory (Berlyne, 1960), explains that a situation is humorous when people

successfully resolve the inconsistency between what has been said and done. Here, the emphasis is on the cognitive development of the person rather than on the emotional part of the humour. The second, superiority theory, suggests that humour develops from the perception of being superior in contrast to others (Gruner, 1978). This situation explains why aggressive behaviour is often used to make fun of others. Thirdly, Berlyne (1960) proposes the arousal theory, suggesting that humour is the result of the interaction between cognition and physiological arousal. This theory explains that humour can reduce the level of anxiety in an individual and become part of a coping strategy. Hence, due to the complexity of the many aspects of humour, Banas et al., (2011) suggest humour it is not considered to be a homogenous concept. This polarised position is especially so because humour can have polarised consequences: either social unity and anxiety reduction, or derision and mockery (Banas et al., 2011).

Now that humour theories have been discussed, the next chapter will investigate deeper into the understanding of instructional humour inside the classroom. The instructional humour processing theory, proposed by Wanzer et al. (2010), is the most accepted recent theory on humour and learning. This theory suggests that the messages transmitted in a humoristic way require students' motivation and cognitive ability to process and decode their meaning. These two characteristics apply to any sample of students, no matter the age range. If students can resolve the humoristic approach (Wanzer et al., 2010), then it can increase the chances of recall and learning. The consideration for the teachers is that they need to have a heightened awareness of the relevance of the humour and its appropriateness for the class. When humour is relevant, it does not necessarily, therefore, divert from the main message. When humour is appropriate, it promotes positive emotions and avoids derision and mockery (M. Booth-Butterfield, S. Booth-Butterfield & Wanzer, 2007; Kane, Suls, & Tedeschi, 1977). The theory found to be the most effective for describing the use of humour in learning, in the present thesis, is Instructional Humor Processing Theory, as it addresses specifically the links between humour and learning, the appropriate and inappropriate styles used by teachers, and the impacts humour has for both teachers and students.

The inappropriateness and irrelevance of the humour used in class are considered as a risk when instructing students in a humorous manner. Therefore, teachers need to evaluate their personality traits to decide whether instructional humour is a methodology that they can adapt into their lessons and daily teaching. In addition, they need to recognise the risks associated with the use of humour in the classroom.

1.4. Aim and scope

This research aims to understand the many aspects that relate to instructional humour in the context of teaching-learning processes: The objectives are to:

- Investigate the effects of instructional humour in the classroom;
- Reveal/Explore whether there is a difference in the use of instructional humour across age groups in the classroom;
- Explore risks associated with the use of instructional humour in the classroom from the teacher and student perspectives.

1.5. Research question

The main research question of this research is:

1. Does instructional humour have a place in the classroom?

In addition, this research will also aim to answer the subsequent questions:

2. What are the challenges when implementing instructional humour in the classroom from the perspectives of both teachers and students?
3. When is it advisable, or not, to make use of instructional humour in the classroom?

1.6. Significance

This research intends to identify the use of instructional humour inside the classroom and explore its connection to the learning process. The development of a methodology to better approach students and promote learning also referred to as a pedagogy, is a topic studied by researchers to give light on how a teacher can meet students' learning needs (Banas et al., 2011; Ulloth, 2003b; Wanzer et al., 2006). In the present research, the intention is to provide a contribution to the teacher-research field, as well as to other fields and practice such as educational psychology, counselling, teaching, administration, and policy development. This research explores what are the consequences associated with the use of instructional humour for both teacher and student through an analysis of the literature. The purpose, thus, is to offer a broader outline and analysis of the existing literature. Furthermore, through the comparison of the different research outcomes, the thesis provides a relevant source of information to future professionals who are interested in this topic. This research is expected to be relevant to all the professionals interested in the field.

In summary, the significance of this research on instructional humour for the teacher is that it:

- Provides additional pedagogical development for teaching methodologies;
- Assists in the development of relationships with students (i.e. rapport building to support engagement with learning);
- Maintains the idea that there can be space for using creative and innovative ways of connecting with students.
- Invites critical reflection on the risks and challenges associated with the use of instructional humour according to the different age groups;

In summary, the significance for the student is:

- To experience another way of learning with appropriate humour related to the content of the class, making the learning experience more enjoyable;
- To belong to a healthy and safe environment, and to feel confident about sharing personal ideas or beliefs;
- To have the opportunity to develop a collaborative learning relationship with the teacher, regardless of the age gap;
- To experience a positive social engagement with their peers and teachers.

1.7. Limitations

This research focuses on the effects that the use of instructional humour has on students' learning, as well as exploring other relevant consequences that humour has for both teachers and students. There are some limitations to this research. For instance, the age range of the participants in the studies reviewed is, in the majority, in early childhood or high school years. It is not common to find studies of university lecturers who use humour as a teaching methodology, and the literature on adult students is minimal. Another limitation is the locations where studies have been conducted. Most of the studies mentioned in this review take place in the United States and the United Kingdom, and the interpretations of the results have a Western influence. In addition, a limitation of this thesis is that most of the literature on humour and learning is at least 40 years old. Hence, there is a significant gap regarding modern samples, and how humour theory can be adapted to the 21st century. It is essential to note that, when researching about instructional humour, other related topics appear that will not be addressed in this research, as they can divert attention from the main idea. For instance, studies that make reference to how teachers may benefit from the use of humour between colleagues, by building confidence, teamwork and facilitating collaboration through sharing ideas; or how out-of-class humour enhances the relationship between teachers and students.

1.8. Overview

This thesis is presented in four chapters. The present, introductory chapter explored the context, and the motivation, aims and scope of the study were considered, as well as the research questions. In Chapter 2, the thesis presents the methodology and procedures for the selection of the articles. The articles in humour and learning are analysed and discussed in Chapter 3, and in addition, the taxonomies and risks are presented. In the final chapter, the limitations of the research are presented in parallel with suggestions for future research and practice.

CHAPTER 2: METHODOLOGY

2.1. Introduction to methodology

This chapter focuses on the methodology of the study. A discussion is presented on how the research papers were selected, framed by the research questions and research paradigm.

2.2. Literature review methodology

This section provides the explanation of the framework adopted for this research; as well as the research strategy and the selection criteria of the literature review guided by the research questions. In addition, the methodological procedures used in the literature review are addressed later in the chapter.

2.2.1. Paradigm

A paradigm is a particular way of interpreting the world or thinking about a particular phenomenon (Kuhn, 2007). In the present research, the interpretive paradigm is used, as it is focused on the individual experience (Cohen, Manion & Morrison, 2013). The present research examines how humour can impact on students' learning: how students perceive that the humour used by the teacher is helping in their learning experience, and how it can affect their social development. The research aims to identify the individual perceptions of both students and teachers when using humour as a teaching methodology.

The interpretive paradigm provides the framework for the ontology, epistemology, methodology, and the aim of the present research. In the interpretive paradigm, the ontology explains that reality is "socially constructed" (Check & Schutt, 2012, p.15), and that the researcher needs to identify the meanings people give to that reality; or as Cohen et al. (2013) suggest, the construction of reality is the consequence of "individual cognition" (p. 5). Thus, according to the notion explained above, the interpretive paradigm considers that knowledge is

acquired in an individual subjective manner (Cohen et al., 2013). In addition, in the present research the interpretive epistemology; challenges the beliefs related to humour theories compared to the empirical evidence in order to create significant knowledge in this research. The methodology used in the interpretive paradigm is ideographic (Arthur, Waring & Coe, 2012) because the emphasis is placed on individual behaviour (Cohen et al., 2013). Thus, the studies that are considered in this research explain how a particular sample responds to the techniques used. The interpretive paradigm affects the research questions; by providing a comprehensive interpretation and reconstruction of the concepts investigated (Arthur et al., 2012). Hence, over time, the research related to humour, and its impact on the educational field and learning outcomes can be more elaborated and subsequently updated.

2.2.2. Search strategy

Studies have been reviewed for the last forty years since the interest in instructional humour began (Banas et al., 2011). In this literature review, a number of electronic databases were accessed. These included peer-reviewed articles and bibliographical reviews. The literature research was carried out using ERIC (ProQuest), Education: SAGE, ProQuest Education Journals, and public websites, such as Google Scholar, to detect any current recommendation or discussion related to instructional humour. The databases selected are the most recognised in the education research field. The search data parameters were for the period 1 January 1960 to 15 September 2016, and there are eleven articles that concur with the selection criteria, which linked humour and learning in the classroom. These articles are: Bryant and Zillmann, 1989; Davies and Apter, 1980, Garner, 2006; Gorham and Christophel, 1990; Hall, 1969; Kher, Molstad, and Donahue, 1999; Opplinger, 2003; Powell and Andersen, 1985; Torok, McMorris and Lin, 2004; Wanzer et al., 2010; Warnock, 1989; and Ziv, 1988.

The following search terms were used: humour; instructional humour; early childhood; primary and secondary; high school; pedagogy; medicine; tertiary education; teaching methodologies; learning; and memory. Considering the various keywords and terms that relate to the use of humour within the education environment, the following terms were also included: impact of humour on learning; and instructional humour in Asia. Excluded studies were those

that were not available in English and where the use of instructional humour was not clearly exposed.

2.2.3. Selection criteria and studies included in review

In this review, the selection criteria for the articles were developed through an examination of previous studies in the field. Certain studies were not considered where the research did not clearly describe the procedures used to measure humour inside the classroom, or when the use of humour in education was not the focus of the study. Thus, the studies previously mentioned were not considered as relevant for the present research.

Concerning the studies that investigate the close association between learning and the use of humour inside the classroom, the thesis includes all peer-reviewed, cross-sectional studies investigating the variables mentioned above in Section 2.2.2. Cross-sectional studies are considered to be a beneficial resource, as they enable the analysis of links between learning and humour in different population groups at a particular time. Cross-sectional studies also facilitate the structure of the topics that are addressed inside a determined framework. In addition, another benefit of using cross-sectional studies is that they allow the comparison of diverse variables such as the appropriateness of humour, the age and intellect of the students, the teachers' experience, and the cultural impact of humour, all of which can be then validated in upcoming research. Studies that demonstrate weakness in the methodological procedure, such as small samples, reduced examination of variables, or frail data interpretation, were included only when they delivered significant insight that was not offered from other studies.

2.2.4. Procedures for data collection

The studies selected for the present research investigate the relationship between the use of instructional humour inside the classroom and students' learning. In addition, the appropriateness of the humour, as well as the risks and challenges embedded for the students are investigated in terms of whether they exert a significant influence on the links between learning and the use of humour.

On the whole, 115 articles comprised the data examined in this thesis. There are several types of articles that met the eligibility criteria for the thesis, mentioned above in Section 2.2.2: Firstly, the articles presented a clear link with the instructional humour inside the classroom; and secondly, they presented the links of humour usage to learning. Due to the small number of studies conducted in the field, a short review has been included in the present thesis.

The methodology used for this research includes the procedures used for the search strategy and the selection criteria of the articles. As well as the paradigm that guided the entire process. The next chapter continues with the literature review on humour and learning

CHAPTER 3: LITERATURE REVIEW

3.1. Introduction to literature review

In this chapter, I discuss the diverse positions on the place of humour in the classroom, the risks and challenges teachers face when using humour, and what is advisable in the implementation of instructional humour as a teaching methodology in the classroom. Instructional humour researchers are still trying to determine how the use of humour as a learning methodology functions in the educational field (Wanzer et al., 2006). In the last 40 years, researchers' efforts have aimed to identify better teaching effectiveness (Christophel, 1990; Frymier, 1994; Richmond, Gorham, & McCroskey, 1987).

The study of humour and how it can affect learning when used inside the classroom has resulted in two differing approaches (Banas et al., 2011). When analysing the literature on humour and learning, most researchers agree that there are no conclusive statements about the best humour style to use when teaching, and how much humour benefits student's learning. Some researchers state that when teachers use humour in a positive way in the classroom, it provides a calm environment and promotes learning (Banas et al., 2011; Garner, 2006; Wanzer et al., 2006). In addition, research suggests that when teachers use humour, they tend to receive higher scores in the evaluations made by students, as well as increases in the overall self-motivation of students (Aylor & Opplinger, 2003; Bryant, Comisky, & Zillmann, 1979). The presence of varying positions in the literature regarding the use of humour in the classroom generates confusion in the education field. This debate is created because of the information related to instructional humour that focuses on the positive effects of using humour in the classroom, suggesting that instructional humour increases motivation and learning (Banas et al., 2011). According to Gordon (2010), neglecting a unanimous definition of humour is mainly because, for a long time, the study of laughter and humour was not considered a relevant enterprise. Hence, the need to develop a deep and thorough understanding of humour has not been seriously recognised by researchers.

Other researchers have found that when aggressive humour is used inside the class, such as insulting, mocking, manipulating or belittling students (Banas et al., 2011), it can have concerning consequences for teachers' evaluations, students' enjoyment of the lecture, and result in a more hostile learning environment (Gorham & Christophel, 1990; Harris, 1989; Stuart & Rosenfeld, 1994). The challenges and risks embedded with the use of humour are related to the promotion of disrespect towards the teacher, the inability to manage class misbehaviour, or reduction in the students' learning outcomes because the learning is not taken seriously. Studies that have identified the challenges and risks also note that the situations mentioned above happen when the teacher uses inappropriate humour, unrelated to the class lesson. Thus, the lack of agreement about humour and learning is a limitation when drawing conclusions on the research (Koller, 1989); and there are no definitive inferences about the effects of humour on the classroom, the difference in impact across age groups in the classroom, and the risks associated with the use of humour inside the classroom (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003; Teslow, 1995).

The findings of the literature on the place of instructional humour are varied. Implementing humour in the classroom can be at the same time a strongly recommended practice or actively discouraged. Its use will depend on the context and characteristics of the students, as well as the humoristic style used by the teacher. It is, thus, advisable to use instructional humour if the teacher feels comfortable with using humour as a new approach and teaching methodology. Moreover, if the class evidences fear and tension, teachers could make use of humour to create a criticism-free space and engage students in their learning. By contrast, it is not advisable to use instructional humour when the teacher cannot differentiate between appropriate and inappropriate humour, when the class turns into an environment that promotes derision, mockery and disrespect, or when the students are not enhancing their learning because the humour used is not related to the content of the class.

Regardless of the limitations mentioned in the previous paragraphs, the present research aims to determine the role of humour in the classroom, the impact when applied across different age groups and explore the risks associated with its use inside the classroom.

3.2. Historical evolution of humour

Philosophers and academics have studied humour from at least as early as Plato's time (Gordon, 2010). The main of such study purpose has been to identify what humour is and why people laugh (M. Kuhrik, N. Kuhrik & Berry, 1997). There are many definitions about humour in the literature (Banas et al., 2011). The general agreement states that humour is the communication of numerous connotations that can be considered as amusing (Banas et al., 2011; Martin, 2010; Wanzer, 2002). Furthermore, the understanding of humour has evolved along with society. In this section, a discussion of the evolution of the definition of humour and instructional humour is presented.

Plato stated that laughter should be avoided; and Aristotle suggested that humour was excessively used (Kuhrik et al., 1997). Plato's position around humour became popular, considering laughter as an emotion that comprises disdain for other people, and for such it should be banned (Morreal, 2014). Later, when the Christian religion became popular in the Middle Age, the church affirmed that laughing and playing was against their values (Gordon, 2010). Pilgrims believed that humour was a demonstration of a mental condition (Ruxton, 1988). In the education field, church superiors considered students' laughter was a sin: an indication of insolence, insubordination, and stupidity (Hill, 1988); while teachers were concerned at being targeted for lacking the ability to control the classroom (Hill, 1988).

Since the early 1980's, there has been an increasing interest in the benefits that humour can bring to a person physically and psychologically (Lefcourt, 2001; Martin, 2010). In fact, throughout the 20th century, an interest in grasping a better understanding of humour increased, aiming to identify individual differences in terms of the use of humour (Martin, 2010). This interest has continued possibly due to an interest in the responsiveness of positive psychology and its focus on individual traits (Seligman & Csikszentmihalyi, 2000; Snyder & McCullough, 2000). Having a sense of humour has been understood as a stable personality trait (Ruch & Carrell, 1998). However, other researchers have identified other ways to define humour, considering humour to be multi-faceted (Ruch & Carrell, 1998). Some authors consider that

humor is an appreciated behaviour (Martin, Puhlik, Larsen, Gray & Weir, 2003; Watson & Emerson, S.,1988), for example, consider humour to be:

- A cognitive ability
- An aesthetic response (appreciation of humour)
- A behaviour pattern
- An emotion-temperament trait
- An attitude
- A coping strategy

Furthermore, all of these diverse approaches lead to different ways of measurement when conducting studies related to humour (Martin et al., 2003). In modern research, humour has gained importance in regards to the positive learning outcomes it can provide for students, the enhancement of self-motivation, the construction of a trusting relationship between teachers and students and the promotion of creative thinking (Wanzer et al., 2010). In the present thesis, an evaluation of how teachers' humour as an instructional methodology can create a positive or negative impact on student's learning process is conducted. Research by Torok, McMorris, and Lin (2004) found that 74% of college students surveyed indicated that they appreciated teachers' use of humour in the classroom as long as it was used constructively (Wanzer, Frymier, & Irwin, 2010).

In the next section, the reasons of why humour is important for students' learning is investigated. It focuses on the evidence that supports the benefits that instructional humour provides for students beyond learning.

3.3. Why is humour important for learning?

In the field of education research, the connection between humour and the influence that its use has over students' learning has been investigated (Hauck & Thomas, 1972; Wanzer & Frymier, 1999; Ziv, 1988). This section will target the benefits that humour provides for teachers and student when is appropriately used inside the classroom. In a wide sense, humour is used as a way to generate cohesion within a group (Hay, 2000), to reduce the levels of anxiety (Chabeli, 2008; Martin, 2010), to make corrections, provide praise (Barney & Christenson, 2013) and as a coping strategy (Booth-Butterfield, M., Booth-Butterfield, S. & Wanzer, M., 2007); which processes are strongly connected to the learning process, in the education field.

Research suggests that there are several benefits for students when humour is used in teaching (Berk 1998; Pollio and Humphreys 1996). According to studies conducted on the use of humour inside the classroom, using humour promotes positive psychological effects (Garner, 2006). Psychologically, when students experience a class embedded with humour, they have less anxiety towards the subject and are self-motivated to acquire new knowledge (Berk, 1998). In addition, Wanzer (2002) suggests that, when the teacher uses content-specific humorous examples in class, it increases the effectiveness of students' learning because students experience a gratifying environment (Neuliep, 1991) that augments their attention span (Davies & Apter, 1980), gives them a fresh perspective, and most importantly, that promotes retention of the content (Ziv, 1988). Moreover, the bonds created by the teachers and students as a consequence of the positive use of humour in the classroom promote a trusting relationship as well as respect and confidence (Chabeli, 2008). This enhancement in learning is of particular interest to the educational field because, by the promotion of a positive and creative environment, students can engage in the learning process and more readily recall the information provided (Glenn, 2002). Students' learning is promoted because they perceive that the classroom is a safe place to enquire and criticize, and they can, therefore, focus on the class (Glenn, 2002) Moreover, using humour in the classroom reduces the distance between teachers and students (Wanzer & Frymier, 1999): when an authoritarian perception of the teacher is not present, students develop a closer bond with the teacher (Chabeli, 2008)

Some researchers affirm that there is an adequate amount of relevant research relating the positive effects that humour has on learning and teaching (Civikly, 1986). Chabeli (2008) suggest that when teacher use humour inside the classroom students feel at ease, and this comfort helps them to experience confidence and competence in their skills. For some researchers, humour is a powerful pedagogical tool (Dodge & Rossett, 1982) that promotes learning and creative thinking (Ziv,1988) which in turn will result in an opportunity to be critical and analytical with the information they receive from the teacher (Valett, 1981). However, the benefits of using humour in the classroom can only be observed when the teacher uses appropriate humour (Korobkin, 1989). According to Dodge and Rossett (1982) when teachers use humour as an instructional method, students are likely to maintain interest in, and attention to the content; and some college students have associated this feature with an increase in learning and divergent thinking (Korobkin, 1989). Ziv (1988) states that humour also promotes social interaction inside the classroom.

Chabeli (2008) proposes that learning is the consequence of the cognitive and affective spheres of students. On the one hand, the cognitive involves the critical analysis of the information, and the questioning and assimilation of the content; on the other hand, the affective areas of students are linked to the perception of being in a safe environment and the overall enjoyment of the class. Hence, it is through the use of humour that learning becomes a collaborative endeavour for teachers and students, where both parties have the opportunity to grow and learn from each other. Increasingly, teachers are looking for ways of developing better teaching practices, moving away from the traditional methods of teaching (Chabeli, 2008). As mentioned in earlier sections of the literature review, the importance of using humour in the classroom is relevant only when the teacher uses it in an appropriate way. This means that the teacher pays careful attention to certain key factors, such as the moment when the humour is used, relating the humour to the content in the lesson (goal-directed). Making sure it does not target any particular ethnic or gender groups, promotes social interaction, and facilitates the committed participation of the students. If teachers successfully achieve these conditions, they will give the students control over their learning. According to Chabeli (2008), humour takes place in a particular social environment, and if it is properly implemented in the classroom, it can

strengthen the social bonds between students and teachers (Ulloth, 2003a). Students engage with the content of the lesson when teachers use humour as a pedagogical tool. It has been reported that humour provides a safe space where students do not feel criticised or intimidated by the teacher, and where mistakes can be acknowledged without harming students' emotions (Hayden-Miles, 2002).

3.3.1. Teacher

As has been stated by Chabeli (2008), when teachers incorporate humour into their classes, they are demonstrating the passion and interest they have in their profession. They get involved in students' learning and make sure that it becomes a significant learning for the future. The benefits that using humour provides for teachers are mentioned next.

Gordon (2010) suggests that learning to laugh at oneself is significantly important in the teaching profession as it promotes the development of other skills, such as being more open-minded, having empathy and tolerance towards students, and the moral virtue of humbleness. However, it is not guaranteed that this transformation process will occur in every teacher.

In the education field, using humour inside the classrooms relates to the inclusion of verbal and non-verbal humour. Ziyaeemehr and Kumar (2014) mention that teachers can make use of word-based humour related to the content, such as funny stories, metaphors, wordplays, puns, and riddles. Indeed, humour can clearly include jokes, but when used in the classroom, teacher humour goes beyond the boundaries of just telling jokes (Chabeli, 2008): in fact, teachers that use humour as a teaching methodology can use both their verbal and non-verbal language to make the class enjoyable.

When teachers use humour, the students feel they belong to space where dialogue is allowed and can act as an ice-breaker, which facilitates acceptance of each other and gives the opportunity to learn from one another (Chabeli, 2008). If humour is used as a methodology in a

classroom where students are accustomed to a traditional methodology, it can serve as a way of change (Nesi, 2012).

Chabeli (2008) suggests that, even when the teachers are highly knowledgeable in their subjects, if they fail to make an appropriate bond with their students, their teaching is not welcomed, and students do not develop a trusting relationship with them. Scanlan and Chemomas (1997) propose that to gain the admiration and respect of the students, teachers need to leave their authoritative position and participate in the reflection and analysis processes along with their students. According to Ulloth (2003b), if teachers desire to improve their methodologies, they can benefit from humour as it allows students to organise their knowledge and make use of it to create new ideas. However, since all students differ from each other, teachers need to make use of diverse materials to cater for their learning needs. Moran (1994) proposes that humour has several benefits when it is properly used inside the classroom.

Nonetheless, this should not encourage teachers to dedicate the entire lesson to humoristic content. On the contrary, teachers need to promote students' creativity and thinking. Using humour should not be an excuse to replace the content of the class, but a way to introduce students to new content.

3.3.2. Student

In the previous section, the importance of using humour as an alternative methodology inside the classroom, and how teachers can obtain great benefits from its use, in a professional and personal way, was explained. As with teachers, students too can enjoy the benefits of the use of humour. These benefits are presented in this section.

Aylor and Oppliger (2003) assert that researchers have been long interested in identifying the effects of teachers' humour on their students. When investigating students' perceptions of teacher humour, Wanzer and Frymier (1999) found that when teachers use a humoristic methodology, students increase their performance, as well as promoting the learning that

involves affective states, known as affective learning. In addition Wanzer and Frymier (1999) suggest that the use of teacher humour has direct effects on students' perceptions and expectations of teachers and their teaching.

Some researchers affirm that one of the effects of using humour inside the classroom is the enhancement of learning and recalling (Garner,2006; Koller,1989 Kovalik & Olsen, 1998; Valett, 1981) Banas et al. (2011) suggest that, when the content of the class is properly linked with humoristic features, it helps in the recalling of relevant information. Learning is an activity that involves both cognition and the affective states of a person, which take place in a particular setting (Kovalik & Olsen, 1998). Researchers have determined that these two areas cannot be detached. The reasons behind this statement suggest that during learning, the emotions and cognitions of student play the main roles (Kovalik & Olsen, 1998). When humour is used appropriately inside the classroom, students can resolve the links between the humoristic intention and the content, and they can thus be self-motivated and participate in the development of their learning. According to Chabeli (2008), students can benefit from the use of humour inside the classroom in cognitive and emotional ways, apart from their general enjoyment of the class and socialisation with their peers.

Moreover, some researchers have given value to the confusion generated when using humour inside the class as a valuable outcome for students' learning. D'mello, Lehman, Pekrun and Graesser (2014) discovered that, when students experience antagonist standpoints and unusual ways of analysing information, they experience cognitive disequilibrium. This disequilibrium, under particular conditions, creates a healthy confusion which can be advantageous for learning. Cognitive disequilibrium is the strain people go through when they are confronted with contrasting views that they cannot resolve. Hence, this strain fuels an interest and motivation to understand the new information and try to make sense of it. Likewise, Graesser, Ozuru and Sullins (2010) argue that, when learning complex concepts, students need to answer causal questions, identify and solve problems, create comprehensible explanations and prove they can replicate what they learned. Hence, disequilibrium places students in a cognitive discomfort and this situation motivates them to look for an answer. Improving students' learning

outcomes is the main objective of teaching. Learning outcomes are conceived as the expected results that students, teachers, and all the stakeholders have when lessons in a class are imparted (Nygaard, Holtham & Courtney, 2009).

Chabeli (2008) mentions that humour helps with the development of critical thinking and emotional intelligence. Critical thinking is a cognitive skill that involves flexibility and that, when developed, helps with the analysis and evaluation of information. In addition, it promotes the creation of new inferences (Chabeli, 2008). Students who develop critical thinking skills find themselves in the process of constant inquisition, working mentally to make sense of their experience and reorganising previous and new information. In addition, it promotes the creation for new inferences (Chabeli, 2008). Students who develop critical thinking skills find themselves in the constant inquisition, working mentally to make sense of their experience and reorganising previous and new information. They are aware of their biases and prejudices before making a judgment and willing to reconsider their conclusions if provided with logical reasons (Leicester, 2010). Critical thinking is a skill that can be learned if teachers successfully create a space free of judgment and instead of judgement decide to challenge their students (Leicester, 2010). Thus, the appropriate use of humour is an ideal candidate if teachers wish to create a stimulating environment that will enable students to develop the critical thinking skill. In addition, it has been suggested that using humour as a teaching methodology can also help with the promotion of students' emotional intelligence (Chabeli, 2008).

3.4. Theories of teacher humour

There are numerous theories of humour that can be found in the literature. However, there is not a general agreement on what constitutes something as being humourous (Banas et al., 2011; Westbury, Shaoul, Moroschan & Ramscar, 2016). Despite variation in theories, there are three main theories that are considered as the most accepted. These theories are the arousal theory, the superiority theory and the incongruity theory (Banas et al., 2011; Buijzen & Valkenburg, 2004). These theories are explained in the next paragraphs in detail.

In reference to arousal theory, some researchers suggest that laughter is a way of gaining balance in a psychological way, in an attempt to reduce the tension caused by the surroundings or personal fears (Berlyne, 1960; Meyer, 2000). Hence, according to this theory, laughter helps release energy that creates tension for the person (Meyer, 2000) as well as releasing bottled-up thoughts about taboo themes. It is suggested by Mulder and Nijholt (2002) that it is possible that a person replaces feelings such as sadness or anger by a more pleasant one through the use of humour. Another well-known theory is the superiority theory, which has its roots in the writings of Aristotle, Plato, and Hobbes (Nesi, 2012). This theory suggests that humour can provide power to the person who makes the joke by making fun of others and feeling superior to them, while the others are turned into victims of the joke and thus seen as inferior (Gruner, 1997). Finally, the incongruity theory suggests that people consider that something is funny when they can resolve the absurdity of what is being said or done. This theory was first suggested by philosophers such as Kant and Schopenhauer (Nesi, 2012). According to Rasking (1985), the humorous content needs to include contradicting arguments, creating incongruity. Hence, humour could be the resolution of a certain incongruity identified in a joke (Mulder & Nijholt, 2002).

Even when the theories previously explained are the most commonly used when making reference to humour, these theories do not enlighten us about how humour can play a positive role in the promotion of students' learning (Wanzer, Frymier, & Irwin, 2010). Thus, in the education field, there are theories that have been derived from the three major ones to develop materials that when presented in a humorous way in the classroom, can promote learning and better recall of the content (Opplinger, 2003; Teslow, 1995; Wanzer et al., 2010). The use of teachers' humour with their students to promote learning, and increase retention and attention levels has probably existed since ancient times (Wanzer et al., 2010), but not much attention has been directed to its investigation.

Extensive research on humour and learning is still inconclusive (Bryant, Brown, Silberberg, & Elliot, 1981; Bryant, Comisky, & Zillman, 1979; Kaplan & Pascoe, 1977; Ziv, 1988). However, one theory that has undergone exhaustive exploration to identify the connection

between humour and learning is that developed by Wanzer and Frymier (1999), which they term Instructor Humour Processing Theory (IHPT). This theory is based on previous studies of incongruity-resolution theory, disposition theory and the elaboration likelihood model (ELM) of persuasion (Wanzer et al., 2010). These researchers identified that not all humour that comes from the teacher is appropriate for students. Hence, they tried to determine the reason why, even when some humorous materials may be appropriate for the classroom, this still does not guarantee students to learn in all situations (Wanzer et al., 2010).

With their study of IHPT, these scholars concluded that humoristic messages are processed by the students in two ways: cognitively and affectively. If students can resolve the incongruity and the humour generates a positive affect on students, then it promotes laughter and compliance of the students. In addition, if the humour used by the teacher is appropriate, in the sense that is related to the material of the class and is not aggressive towards anyone, then it is highly probable that it will promote learning, because students will successfully start to make connections between the content of the material and the positive affects they experience. However, unrelated humour, that was also considered appropriate (Wanzer et al., 2006), failed to promote students' learning, possibly because it did not promote the processing of information. More research is required to understand how students react to other appropriate ways of humour in class (Wanzer et al., 2010).

Making use of humour in an interpersonal interaction appears to have numerous explanations (Nesi, 2012). In this section, the most influential theories of humour have been discussed; in the next section, an explanation is provided on what are the most used classifications of humour.

3.5. Taxonomies of humour used in the classroom

There are several classifications of humour that have been developed over the years (Bryant et al., 1979; Frymier, Wanzer & Wojtaszczyk, 2008; Gorham & Christophel, 1990; Nussbaum, 1992; Wanzer et al., 2010). Taxonomies of humour can be found to be very simple, such as

either positive or negative; or can be very complex and include several sub-categories (Banas et al., 2011). In this section, some of the most relevant taxonomies of humour are presented.

The framework that many researchers have used is the one that makes a correlation between humour and well-being; with the intention to detect the diverse styles of humour and the functions humour serves. These styles can be considered as being adaptive and beneficial as opposed to being maladaptive and harmful to well-being (O'Connell, 1960; Streat, 1994; Ziv, 1988). Given this situation, Martin et al. (2003) developed a classification that determines if whether the humour used by a person serves to enhance the self or to improve relationships with others. From these two dimensions, four sub-categories are created: affiliative humour, self-enhancing humour, aggressive humour and self-defeating humour (Martin et al., 2003). Affiliative humour is one that involves joke telling and is used to promote interpersonal cohesiveness by reducing tension, and it is associated with positive emotions. Self-enhancing humour is the humoristic way of interpreting life events, such as the absurdities of life and challenges that can appear in life; and, it could be perceived as the coping humoristic strategy (Kuiper, Martin & Olinger, 1993). Aggressive humour includes the use of sarcasm, derision, and disparagement, and is commonly used to manipulate others or for mockery-making about ethnicity, gender, religion, among other attributes (Janes & Olson, 2000); and it is highly related to hostility. The fourth category is self-defeating humour, which involves the use of self-deprecating, humorous content with the intention to please others; which humour it is considered, is underpinned by low self-esteem and emotional poverty (Fabrizi & Pollio, 1987). Martin et al. (2003) four sub-categories help to explain the reasons why humour is used in interpersonal interaction.

Similarly, Wanzer et al. (2006) developed a classification of humour by associating it with the content of the class, resulting in four main categories that are considered appropriate or inappropriate for students' learning, from the four categories, Wanzer et al. (2006) identified several additional subcategories (See Appendix 1). The four main categories are: humour related to the class material; humour unrelated to the class material; self-disparaging humour; and unplanned humour. They conclude that, when asked, students had no difficulty in identifying the

type of humour used by the teacher, and reported relating better to the content of the class when appropriate humour was used. As opposed to inappropriate humour, which created negative emotions in students, perpetrating psychological discomfort (Infante & Wigley, 1986).

Another attempt to classify humour is that of Martin (2010), who suggests that humour can be classified by in three forms. Firstly, there are jokes, which typically are free of context and have a punchline. The second form is spontaneous conversational humour, which takes place when interacting with others and can be either intentional or unintentional; and thirdly, the unintentional humour, which is accidental comments or actions that could be humorous. Bryant et al. (1979) investigated whether teachers' humour was either planned or spontaneous, and concluded that humour could be classified into six types: jokes, riddles, puns, funny stories, and humorous comments. All of these six types of humour could be either arranged before the class or happen naturally (Banas et al., 2011).

In summary, there are several classifications and approaches developed by researchers over the years in an attempt to create a clear and objective taxonomy of humour. It is clear, however, that, despite the differences in taxonomies, a common characteristic identified is that disparaging and aggressive humour does not promote learning or positive emotions in the subjects who are the victims of it. Hence, it is not advisable for teachers to use any humour that can hurt, diminish or offend students. In addition, it is recommended that teachers try to relate their humoristic approach to the content of the class to increase the probabilities of promoting learning in students.

3.6. Risks associated with the use of instructional humour inside the classroom

In the previous sections, the theories of humour and its classification have been explained. Even when there are some benefits that can come from humour, some researchers consider that there are two sides to the argument and that humour can also incur great risks; presented in this section. The risks can be related to the inappropriateness of humour and the individual teacher differences that can create a less-than-positive impact on students' learning.

3.6.1. Inappropriateness

Humorous communication can have negative impacts if key involved factors are not considered. For instance, when teachers use humour as a way to promote learning and bond with students they need to be aware that humour is a complex task. For instance, Banas et al. (2011) suggest that it is a complex task to come to a common agreement on the function of teachers' humour in the classroom. The major inconvenience for teachers is the risk of being inappropriate if they fail to properly assess their sense of humour and the audience they are addressing. Some of the most common inappropriate types of humour found in the literature are those related to gender, culture, age, and intellectual development. Since humour is a communication behaviour, humorous communication can be evaluated with the same principles for assessing competent communication to determine what constitute an appropriate use of humour. Competent interpersonal communication can be understood as the skill a person possesses to adapt to the context and choose a strategy that is adequate for a determined circumstance: that is, being able to communicate successfully with people of diverse backgrounds and cultures (Chandler & Munday, 2011). Moreover, Lesenciuc and Codreanu (2012) complement the communication competence concept, stating that it involves an adaptation skill, according to the physical and psychological characteristics of the environment. Spitzberg and Cupach (1984), suggest that a person is competent at communicating to others when their behaviour is appropriate and effective. This kind of behaviour relates to three main characteristics: knowledge to identify the appropriate communication style to use; skill to perform it; and motivation to interact with others (Spitzberg and Cupach, 1984).

Therefore, the humour used by the teacher needs to achieve the goal of the expected learning outcomes. A study conducted by Wanzer et al. (2006). On the appropriate and inappropriate uses of humour by teachers, found that teachers should refrain from using any humour that targets any specific student or group of students. Mocking students' background, culture, values, gender, cognitive development, gender, religion, appearance, or personal interests do not promote learning or encourage the student to get involved with the class. Moreover, it is encouraged that teachers avoid using sexual humour with their students, as it is not respectful towards the class

nor individuals. Hence, teachers need to assess their humour styles and prepare in advance to include humoristic content that relates to the content of the class, to make the humour relevant and thought-provoking.

In the following sections, an explanation is provided for how the use of humour can differ depending on the individual traits of teachers, such as gender, ethnicity, age and intellect.

3.6.2. Individual teacher differences

The styles of humour used in the class are a personal choice of the teacher. Hence, there are diverse styles of humour used in the classroom by the teachers have been identified. Research demonstrates that individual teacher differences can influence in the moments when humour is used and the style of humour chosen in the classroom. These differences can be the gender of the teacher, the cultural background, the years of experience in the profession and the cognitive development of teachers, all of which are explained in the following sections.

3.6.2.a. Gender

The socially constructed difference between men and women has been acknowledged by several researchers (Crawford, 2003; Kotthoff, 2006). In the classroom, teachers have the responsibility for promoting cohesiveness and a collaborative space for their students, regardless of gender. Moreover, Sev'er and Ungar (1997) discovered that teachers' gender might influence teachers' reasons for using humour. For instance, they found that male teachers tend to use humour to cheer up the class and entertain students, whereas female teachers were not as likely to use humour with their students. Similarly, male teachers tell jokes and funny stories, while female teachers prefer to use spontaneous humour (Bryant et al., 1979). It is concluded by Bryant et al. (1979) that, in most cases, students considered the humour by female teachers to be more relevant to the class, while male teachers make use of self-deprecating humour.

It is evident that there is limited research on the impact of teacher gender difference and their use of humour with their students (Banas et al., 2011; Kotthoff, 2006). However, the

perceptions of students might be highly influenced by gender roles and individual expectations of these roles (Canary & Hause, 1993).

3.6.2.b. Culture

The humoristic approaches that teachers choose need to be culture-specific (Nesi, 2012; Banas et al., 2011), particularly because humour, and what is considered to be funny, depends on the cultural interpretation of the world (Teslow, 1995). According to some researchers (Baughman, 1979, Morreall, 1983, Nesi, 2012), teachers make use of humour to establish norms, to regulate undesired behaviour, and to engage students with the educational content. However, in some countries, the use of humour and laughter can be considered inappropriate. For instance, it is noteworthy that most of the research about humour has been developed in the United States and the United Kingdom, showing that when teachers use a humorous approach, it reduces tension in the classroom and promotes learning and students' engagement (Zhang, 2005). Changing the classroom spirit by the use of humour in class is a situation that is culturally influenced. To the perception of Chinese students, when teachers use humour inside the classroom, it has been found to promote fear and a lack of engagement with the class (Zhang, 2005). In a Chinese study, using humour promoted feelings of unease, and students' felt that they were being targeted in the class, instead of the common collective approach that Chinese teachers normally use. Another study conducted in Hong Kong, by Flowerdew, Li, and Miller (1998), determined that, in a class where English is the second language, teachers connect more effectively with their students if they tell jokes in the students' mother tongue.

Therefore, the most significant differences found in teachers' use of humour are related to the content and what students consider to be humorous from a cultural perspective (Ziv, 1988).

3.6.2.c. Experience and Intellect

Some researchers have discovered that teachers with more years of experience are more likely to use humour that is related to the class and relevant to the content, in contrast to teachers with less

experience in the field (Banas et al., 2011; Javidi & Long, 1989). Moreover, teachers that, during their career, have achieved performance awards are more likely to choose carefully the moments when they use humour in the classroom. When award-winning teachers use humour in class, it is relevant to the content of the lesson and used to clarify a concept; as opposed to its use by non-award winning teachers who use humour to lighten up the mood (Downs, Javidi & Nussbaum, 1988).

Another feature that has been considered in the literature is the cognitive development of the teachers. In some cases, students might not have sufficient knowledge as the teacher expects them to have, and they may not understand a certain joke because of a different cognitive development or knowledge acquired. This situation can cause confusion for students and increase the distance between students and teachers. Confusion or misunderstanding can also happen when the generational gap between teachers and students is too large and teachers might fail to connect adequately with certain contemporary jokes and analogies.

3.7. Characteristics of the literature on humour and learning

This section presents the main current characteristics of the literature found in humour and learning, considering aspects such as the lack of recent evidence, the antagonist position about humour and learning, and the significance humour has on learning in the 21st century.

3.7.1. Lack of recent evidence

Throughout previous sections of this research, it has been mentioned that more investigation is needed in several areas of the study of the relations between humour and learning. Crawford (2003) considered that, out of all the communication styles used by influential people, humour is possibly the most auspicious, but at the same time the least understood. In fact, Mesmer-Magnus, Glew and Viswesvaran (2012) found that, even after 20 years of research on determined constructs of humour, many vital debates about the conceptualization of humour continue to be unanswered. Most of the research developed on humour and learning took place approximately

40 years ago, which thus does not provide fresh and updated evidence about how humour can impact on the learning and recall processes, in the 21st century. Another aspect to consider is that most of the literature is in research that has taken place in Western countries (Banas et al., 2011), reducing its capacity for transferability to other cultures or contexts.

3.7.2. Antagonist positions on the impact of humour on learning

The antagonist positions regarding the benefits and drawbacks of using humour to promote learning have been mentioned throughout the present research. In this section, a deeper look into the different positions taken by researchers on humour and learning and recall processes is presented.

Regarding humour and learning, there are contradictory research findings. Some researchers suggest that using humour as a teaching methodology does not provide any significant difference, by demonstrating that humour in the classroom does not improve learning or retention (Gruner, 1967; Kennedy, 1972; Markiewicz, 1972). It is suggested that, even in early-aged children, humour can create confusion because they still do not understand irony or comical expressions; and even when teachers correct such confusion, the children would remember the humour but not the facts (Bryant & Zillmann, 1989). However, it is noted that the studies mentioned above are not modern, and have been demonstrated to be short in duration and not approached in longitudinal terms (Ziv, 1988). There are other studies that identify the opposing findings (Hauck & Thomas, 1972; Kaplan & Pascoe, 1977; Teslow, 1995; Wanzer et al., 2010; Ziv, 1988; Ziyaeemehr & Kumar, 2014;), highlighting the importance of using humour in the classroom, and indicating that it increases the retention of information for up to six weeks after a class. It has been concluded that humour is more effective when it has a direct relationship with the content of the class (Kaplan & Pascoe, 1977).

3.7.3. Use of humour in the 21st century in the classroom

The teacher's role is considered more important than ever, in regards of how teachers can promote students' learning (Hidi & Renninger, 2006; Huang & Lin, 2014). As Cashin (1985) suggests, a certain quantity of humour, or the inclusion of funny personal stories, boost the spirits of a class. Similarly, Zhang (2005) concludes that, from all the research settled in the United States of America, it is clear that humour improves students' learning, promotes a pleasant environment, reduces tensions in the class, and increases positive perceptions of the teacher.

Emotions play a crucial role in learning, as "emotions drives attention and attention drive learning and memory" (Kovalik & Olsen, 1998, p. 1). In addition, researchers have identified that humour promotes students' opportunities to be creative (Ziv, 1976), critical and divergent thinkers (Valett, 1981). Humour is also found to increase students' motivation to engage in the class and actively participate in their learning, and promote class cohesion (Banas et al., 2011; Morreall, 1983; Nesi, 2012; Wanzer, 2002).

CHAPTER 4: CONCLUSION

4.1. Introduction

The aim of this thesis is to explore the most relevant and recent literature related to the use of humour in the education field. This exploration involves a significant focus on the limited modern and older studies conducted in this area and the impact on learning and teaching in the classroom.

This research examines, through an extensive literature review, the ways in which the use of humour as a teaching methodology impacts on students' learning and recall processes. The challenges embedded for both students and teacher, and when is it advisable (or not) to use humour inside the classroom, have been explored. While there remain varying positions concerning the benefits and drawbacks of the use of humour in the classroom, the findings presented in this thesis advise teachers to carefully assess the audience they are teaching and decide the humoristic methods that are to be used, as well as consider the expected outcomes from using this methodology.

4.1.1. *Does teacher humour have a place in the classroom?*

“Humour is an overlooked natural resource that can play a crucial role in creating a healthy learning environment, but there is very little written about using humour to meet the escalating challenges that confront educators” (Morrison, 2008, p.6).

This first research question can be answered both with yes and no, as teachers' humour has a place in the classroom, but depending on the students' characteristics and the humour style used by the teacher. After conducting the literature research on this topic, it is concluded that humour is a very complex communication behaviour: what is funny for some might not be funny for others. Therefore, it cannot be stated that there is a one-size-fits-all formula for using humour to enhance students' learning. If teachers desire to embark on the use of humour as a teaching methodology, they need to make sure of assessing the audience they will be talking to, and ensure that they are using a humour style that enhances the learning and recall of the material.

Some researchers suggest that the two main considerations when using humour in the classroom are the relevance and appropriateness of the humour (Wanzer et al., 2010). When the humour is relevant, it helps to focus students' attention on the class and in the evoking of the information being taught. Humour is considered appropriate when it promotes positive affect on the students by increasing students' motivation to learn.

Another caveat for teacher humour is the frequency of its use. Too much humoristic content distracts students from the goals of the class and might promote the idea that the only purpose of the class is to have fun, and not to learn. Hence, to avoid this situation, teachers are encouraged to carefully organise and prepare their humoristic material beforehand, to plan in which moments of the class is possible to include a joke, a funny story, or any form of humour that will improve the recall of the content. In addition, different forms of humour can be used in different spaces: for example, in early childhood and with young children, humour can be introduced with stories and games; while with adolescents and adults, it can be used with jokes, puns, riddles. The key finding here is that a teacher must adjust the content depending on the audience.

Nevertheless, there are researchers who argue that humour is not a serious endeavour, and as such should not be considered as a teaching methodology to use in the classroom with the students. Indeed, humour does not have a place in the classroom when students misinterpret teachers' intentions and turn the class into a playground. Sometimes, it is complex to set the precise appropriate tone of the class's humour; and for this reason, teachers need to find a way to appropriately balance between providing space for humoristic content and being clear about the relevance of the class and the importance of student participation in the content, not only in the humoristic parts. Moreover, a risk that needs to be considered is what students take from the class, which can be only the jokes or the funny parts of the class, as the students' forget about the learning intentions (Morrison, 2008; Sudol, 1981). Using sarcasm and teasing as a humoristic teaching style can be significantly dangerous, as some students may perceive it as attacking or rude; thus, this kind of humour style needs to be used very carefully. Sarcastic humour in class is not a recommended humour style. Teachers need to make sure that their students can resolve that what is being said is a joke, and only use humour when there is a relation of trust built

beforehand. Therefore, when humour is inappropriately used in the classroom, instead of promoting learning, it increases mockery, derision, fear of participating in class, lack of engagement with peers, and low self-esteem and students' lack of trust in themselves. I consider that using humour as a teaching methodology is optional; and it will depend on the teachers' sets of beliefs about the teaching and learning context, their expectations concerning classroom interaction, and their ability to appropriately incorporate humour in their classes.

4.1.2. What are the challenges when implementing instructional humour in the classroom from the perspective of both teachers and students?

This second research question considers the teachers' and students' perspectives. It is clear that measuring humour can be a subjective task. However, researchers have tried to identify the most appropriate ways of implementing humour inside the classroom to promote learning and retention of the content of the class.

From the teacher's perspectives, some challenges they could deal with when implementing humour as a teaching methodology are those challenges that it can endanger their professional credibility, promote disrespect, fail to promote learning in students or create confusion among students. Studies conducted on teachers' credibility suggest that students commonly perceive that, when a teacher makes use of inappropriate or aggressive humour, it increases the psychological distance between students and teachers. Moreover, a trusting relationship between both parties is not developed, which impedes the creation of a collaborative environment (Morrison, 2008). Another challenge for teachers is the possibility that, because teachers are funny or amusing, the students treat them as their friends and not as their teachers. This kind of behaviour from the students reflects a lack of respect for the teacher or authority figure, which is an attitude expected from students. This kind of challenge can appear when the teacher uses a humour style that, instead of being related to the class, is more associated with making the class amusing, thus diverting from the instructional goal. Hence, when humour distracts the students, it reduces the probabilities of enhancing the learning outcomes expected from the lesson. Studies demonstrate that, when humour is used in excess, students lose interest in the class, do not see

the content as relevant, and only attend to have a good time with the teachers' jokes, which situation may place the teacher in a 'clownish' position.

The challenges that students face when participating in a class where humour is used as a teaching methodology are significant as well. Wanzer et al. (2006) found that students did not have any difficulty in differentiating appropriate from the inappropriate teacher humour. For instance, when students perceive that the humour used in class is aggressive, they do not feel encouraged to engage in the class or participate. Students feel demotivated, insulted, and are likely to miss the class. The challenges that students face could be related to the confusion of the information given by the teacher, or when the culture of the students does not consider the use of class humour as an important tool. Some students, for this reason, can feel intimidated for being the main focus of attention in the class or for feeling forced to participate in a culturally inappropriate behaviour in class.

4.1.3. When is it advisable or not to make use of instructional humour in the classroom?

It is advisable to use humour in the classroom when the teacher perceives that the class is too tense or fearful to participate and ask questions, when there is no collaborative engagement in the class, and when the teacher finds appropriate ways to promote learning by including humoristic material. Another situation that has been proven to have positive results is when the content of the class is too complex. Using humour as a teaching methodology allows students to experience a reduction in tension in the classroom. Humour can often be a tool for solving complex situations, reducing tensions that could increase unsettling student behaviour and disturbing environments (D. Smith & L. Smith, 1991). When there is no pressure perceived, students can focus and learn because they do not feel threatened by the teacher or by the rejection or disapproval of their peers. The fields where humour can be applied are several, for example, research has been conducted on teachers who apply humour with their students in the medical field, by connecting humour, health, and cognitive development (Robinson, 1991), as well as reducing the tension of health professionals in the work environment (Parkin, 1989). Humour

can reduce the fear of participation by encouraging students to make mistakes and to recognise that we can all learn from slip-ups. In the medical field, humour has been proven to have remarkable results. In this field, students tend to experience pressure because of the complex and broad content they need to learn and repeatedly memorise, especially for when they leave the theoretical levels and need to practice in real-life situations with real people. Teachers have discovered that, when they use a humoristic approach to practical lessons, students feel less tense and can improve their subsequent recall.

Conversely, using humour is not advisable in certain circumstances. For instance, teachers need to be aware of cultural differences in the classroom. For some cultures, perceiving teachers' sense of humour can create an intimidating situation, as is the case in China. In Korea, most teachers prefer to connect with their students in a humoristic way in their language, even when the class is being conducted in English, as most of the teachers believe that they can relate better to students in their common language. For some other students, humour can be seen as an out-of-place strategy: this kind of student tends to focus more on the content, and their intellectual development diverts from the emotional aspect of humour. Likewise, humour is not advisable in the classroom when children have not learned to differentiate between factual information and irony, as it can promote confusion or, even worse, students recall only the joke and not the real content. Therefore, teachers need to be aware of the developmental age of their students and use appropriate humour related to the class content. Moreover, if teachers do not feel comfortable with making their class intertwined with the humoristic material, it is not advisable that they use it. Some teachers believe that using humour as a teaching methodology will encourage students' disrespect, lack of class management, and a negative evaluation by fellow teachers.

4.2. Limitations and implications of the research

This research has presented a thorough review of humour and its application in the classroom. However, there are five key limitations that appear in the literature on this topic reviewed in this thesis: (a) the methodology used in the research studies; (b) the measures taken from learning

and humour; (c) the length of data collection; (d) the style of humour used in the different studies; (e) the contrasts with other cultures.

Firstly, the studies that have been accessed for this research have, in the majority of articles, used a cross-sectional methodology, and not longitudinal studies. The characteristic of cross-sectional studies is that the data collection is completed over a short and specific period (Cohen et al., 2013). The samples collected for these reviewed studies were participants who had been selected through the particular criteria of the researchers. However, the participants were not contacted again for the same study, having different participants studied at different moments in time (Cohen et al., 2013). Hence, the literature reviewed provides a reduced scope on how humour can impact on the learning and recall processes over time on the students.

Secondly, the majority of research on the impact of humour in the learning process has used self-reporting, evaluating the perceptions and recall of both teachers and students. The weakness of this kind of data collection is the low reliability of the recall accuracy of the students and the teachers to identify the moments when humour was used inside the classroom, or which style of humour has more impact than others (Wanzer et al., 2002). Therefore, when applying this methodology, it is advisable to implement follow-up interviews to reduce the gap in the collection of individual information (Wanzer et al., 2010). When conducting research based on students' perceptions, researchers are encouraged to consider the individual biases each student can have towards the teacher, and recognise that students' subjectivity can influence the study. Hence, in this thesis, the findings should be considered with their biases.

The studies reviewed that have not demonstrated links between the use of humour and the benefits it provides for students' learning, which had, in the majority, a short data collection period (Banas et al., 2011; Ziv, 1988), are also acknowledged. It was discovered that the research in some studies lasted only approximately an hour when examining the participants. The shorter time frame in these studies does not provide the opportunity to determine the effects of humour in learning and recall. Moreover, when using humour, it is important to consider the relationship that teachers have with their students (Banas et al., 2011); and in some studies that were short in duration, students only interacted with the teacher once. Therefore, these results need to be

carefully considered when interpreting the literature, because the information could be biased and there are no final conclusions on how students' learning and recall could improve (or not) if the studies lasted for longer periods.

Furthermore, there are not consistent styles of humour addressed in the studies that investigate the effects it has on students' learning. As has been mentioned earlier in this thesis, there are several ways to implement humour in the classroom (funny stories, jokes, cartoons, anecdotes, etc.), and not all teachers use the same humoristic approaches. Critics of this limitation have been earlier identified by Wanzer and Frymier (1999), suggesting that the recall of the information could be impacted by the teachers' style of humour and the moments of the class where humour is used. Since humour is such a complex construct to measure, this is evidently a limitation that needs to be considered.

Finally, the vast majority of literature can be found in Western contexts only, which has a significant impact on the way the outcomes are analysed (Banas et al., 2011). Less systematic studies have been conducted in other contexts such as Asia, Africa or Latin America. Regarding this situation, it is important to encourage the reader to consider the cultural differences when reading the present thesis.

4.3. Suggestions for the future studies

There are still many valuable studies to conduct in this rich and promising area of humour and its impact on students' learning. Suggestions for future studies include the following:

- Reproduce the findings of previous research on the effects of humour and the impact it has on students' learning and recall of information;
- Plan and enact a longitudinal research on what the long-term effects of teachers' humour are in a determined sample;

- Conduct more current and updated research on what is the place of humour in the classroom and how it stimulates learning;
- Identify how humour can be taught as a teaching methodology to improve learning. Appropriate humour has demonstrated to be a useful tool in the classroom, and there are not many studies that can determine how humour can be taught to teachers;
- Apply the use of humour in different cultures and contexts. Most of the literature has been collected from Western backgrounds. In this globalised world, it is important to identify how humour can be implemented in other cultures, without being inappropriate and at the same time promoting learning;
- Increase the academic framework of the use of Instructional Humor Processing Theory (IHPT), which has proved to be a valuable instrument for the measurement of humour and learning; and
- Identify how appropriate classroom humour can impact on students, beyond learning and recall.

4.4. Conclusion

In this thesis, the benefits, risks, and challenges of implementing humour as a teaching methodology to promote learning are analysed. Regardless of the varied results of the study of the impact of humour on learning, there is solid evidence that, if the teacher appropriately uses humour, it can improve the possibilities of students recalling the content of the class and of promoting learning. In addition, appropriate humour in class increases motivation to study, provide an anxiety-free environment, and enhance collaborative and participative work in class. It is evident that it is necessary to plan new research that addresses different learning contexts and cultures, to evaluate the transferability capability of existing research to be carried out as a longitudinal study. For this reason, as a researcher, I intend to plan and enact a longitudinal research study to evaluate how this teaching methodology could benefit the learning processes in Peruvian schools.

APPENDIX 1

Source: Wanzer, M.B., Frymier, A.B., Wojtaszczyk, A., & Smith, T. (2006). Appropriate and Inappropriate Uses of Humour by Teachers. *Communication Education*, 55(2), 178-196.

Table 1 Humor types

Humor type	Description	Representative work	Appropriateness for classroom
Affiliative; Solidarity-based	Amusing others, building solidarity, relieving tension	Hay (2000); Martin et al. (2003)	Appropriate
Psychological needs/Self-Enhancing	Humor used to defend oneself, regulate emotions, or cope with problems that arise during the interaction	Hay (2000); Martin et al. (2003)	Appropriate
Power-based humor	Establish boundaries and create status differences	Hay (2000)	Appropriate
Humor related to class material	Stories, jokes, or other humorous content related to class material	Cornett (1986); Frymier et al. (2008); Kaplan and Pascoe (1977); Wanzer et al. (2006)	Appropriate
Funny stories	Events or activities connected in a single event related as a tale	Bryant et al. (1979); Bryant et al. (1980)	Appropriate
Humorous comments	A brief statement with a humorous element	Bryant et al. (1979)	Appropriate
Seeking funny others	Encouraging humor use in others or seeking out other people known to be funny	Wanzer et al. (2005); Cornett (1986)	Appropriate
Humor unrelated to class material	Stories, jokes, or other humorous content not related to class material	Frymier et al. (2008); Wanzer et al. (2006)	Context-dependent
Self-disparaging humor	Making one's self the target of the humor	Bryant and Zillmann (1989); Cornett (1986); Frymier and Thompson (1992); Frymier et al. (2008); Wanzer et al. (2006)	Context-dependent
Unplanned humor	Humor that is unintentional or spontaneous	Martin (2007); Wanzer et al. (2006)	Context-dependent
Jokes or Riddles	Build-up followed by a punchline	Bryant et al. (1979, 1980); Martin (2007); Ziv (1988)	Context-dependent

Table 1 (*Continued*)

Humor type	Description	Representative work	Appropriateness for classroom
Puns	Structurally or phonetically words or phrases having two or more meanings were used simultaneously to play on the multiple meanings	Bryant et al. (1979)	Context-dependent
Low humor	Acting silly, stupid, or absurd in specific situations	Wanzer et al. (2005)	Context-dependent
Nonverbal humor	Using gestures, funny facial expressions, vocal tones, etc. for humorous intent	Wanzer et al. (2005)	Context-dependent
Impersonation	Doing impressions or mimicking voices of famous characters	Wanzer et al. (2005)	Context-dependent
Language or word play	Witty or clever verbal communication including using slang or sarcasm	Wanzer et al. (2005)	Context-dependent
Laughing	Laughing or varying intensity as a means to make others laugh	Wanzer et al. (2005)	Context-dependent
Using funny props	Using funny props such as cartoons, water pistols, funny cards, etc.	Wanzer et al. (2005)	Context-dependent
Visual illustrations	Use of pictures or items expected to promote humor	Bryant et al. (1981)	Context-dependent
Humorous Distortions Test items	Use of irony or comical exaggerations Using items on tests and assessments that contain humor	Bryant and Zillmann (1989) Ziv (1988)	Context-dependent Context-dependent
Aggressive; Other-denigrating	Manipulating or denigrating others, ridicule, or mocking	Frymier et al. (2008); Gorham and Christophel (1990); Martin et al. (2003); Stuart and Rosenfeld (1994)	Inappropriate
Offensive humor	Humor based on the race, ethnicity, sex, political affiliation, or sexual orientation of another	Frymier et al. (2008)	Inappropriate

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