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Humour-themed holistic learning processes in a Finnish primary school

Juli-Anna Aerila

University of Turku, Finland julaer@utu.fi

Marja-Leena Rönkkö

University of Turku, Finland malepe@utu.fi

Tuula Stenius

University of Helsinki, Finland tuulius@gmail.com

Abstract

Although humour in education has shown positive research results, its use in Finnish classrooms is not common and is not included in Finland's curricula. In this study, pupils' humour is utilised as part of a holistic learning process in Finnish primary education. Implementing holistic learning processes means focusing on child-centredness, dissolving subject boundaries and concentrating on learning-to-learn skills, overall growth and traditional subject-learning goals. As a framework for the learning process, this study follows the guidelines of the Narratives and Crafts model, which aims to connect arts-based activities with different themes. This study aims to investigate the role of humour in the context of an arts-based learning process and to assess opportunities for its more conscious use in learning. The data were taken from the outcomes of 36 pupils during a holistic learning process and were analysed using qualitative content analysis. The results indicated that creative or arts-based activities and humour worked well together as a means for pupils to incorporate their inner thoughts and personal perceptions into their assignments. Furthermore, humour can be a source of a long-term process, and expressions of pupils' humour can be steered by assignments and preliminary materials, as well as by collaboration with other pupils and the teacher. However, teachers should have more research-based information about humour in the classroom and about the importance of humour in the community and for pupils.

Keywords: arts-based activities, holistic learning, pupils' humour, Finnish curriculum, primary education.

1. Introduction

Humour has many benefits in terms of learning and overall well-being. Internationally, humour is used in education to some degree, and research has shown that humour has a positive effect on pupils' language development and overall growth (Loizou & Kyriakou, 2016) as well as on learning concepts and knowledge (Loizou & Recchia, 2019; Stenius et al., 2021). In addition to supporting traditional learning contents, humour has a positive effect on the learning atmosphere and relationships among pupils (Fovet, 2009; Serafini & Coles, 2015).

In Finland, humour has been investigated in the educational context (e.g. Aerila & Rönkkö, 2019; Hohti, 2016; Rönkkö & Aerila, 2018; Stenius & Aerila, 2022), and this body of research has highlighted not only that pupils utilise humour in education and create connections with each other through humour, but also that humour supports creativity and positive attitudes towards learning. Although humour research has shown positive results in the context of Finnish education, its use therein appears to be scarce, incidental and concentrated on informal interactions (Hohti, 2016; Stenius & Aerila, 2022). This notion is confirmed by the fact that the use of humour is not mentioned in any national curricula (basic education, pre-primary education) other than the Finnish national curriculum for early childhood education and care (FNBE, 2022). Nevertheless, humour is only briefly mentioned in the curriculum in the context of learning language skills:

Children's language skills are guided, and language use is discussed with the students in different situations. The goal is to strengthen the use of situationally aware language. With the children, we practice informing, explaining and taking turns. In addition, empathising, using humour, and learning good manners strengthen children's language skills.

(FNBE, 2022, p. 44)

The lack of mention of humour in Finnish curricula is surprising, not only in light of research but also in terms of pupils' culture. For example, the most popular children's books in Finland contain all forms of humour, while scatological and aggressive humour, for example, are widely used in children's popular culture (Aerila et al., 2021).

In this study, pupils' humour is utilised as part of a holistic learning process. Utilising holistic learning processes is in accordance with Finnish curricula (FNBE, 2014, 2018, 2022), which emphasise the integrative and restorative nature of teaching and learning. According to the FNBE, holistic learning processes enhance learners' understanding and knowledge of a subject while also improving their attitudes, logical and coherent thinking, evaluation methods and artistic creativity (FNBE, 2014). Implementing holistic learning processes means focusing on child-centredness, dissolving subject boundaries and focusing on learning-to-learn skills, overall growth and traditional subject-centred learning goals (Aerila & Rönkkö, 2019). Holistic approaches to learning encompass a pedagogy that is methodologically and environmentally rich and diverse, and they are used to deliver more cohesive educational programmes (Kangas et al., 2015). As holistic learning processes provide pupils with a complete learning experience that promotes their growth and well-being (Rönkkö & Aerila, 2018), humour may be an integral part of these processes.

The holistic learning process in this study integrates the objectives and methods of different arts-based subjects (language and literature, crafts and visual arts) with humour in the first grade of Finnish basic education. Holistic learning processes are most often utilised in lower grades because class teachers who teach several subjects are in the best position to devise cross-curricular activities (Kaminski, 2020). The learning process in this study utilised and was sourced from the humour of first graders, who were asked at the beginning of the process to invent characters that would make others laugh. Different arts-based activities were chosen, as

humour is closely related to the arts, and they both concern creativity and expressing oneself (Aerila et al., 2023).

The learning process described in this article followed the steps of the Narratives and Crafts (NaCra) approach, which provides a research-based model for pedagogical applications of holistic and integrative learning in arts-based content (Aerila & Rönkkö, 2023; Rönkkö & Aerila, 2022). The NaCra approach has been tested and further developed in several contexts and learning processes, mainly in pre-primary groups. The studies published so far have investigated the possibilities of the NaCra approach in learning nearby history (Aerila et al., 2016; Rönkkö et al., 2016) and STEAM education (Aerila & Rönkkö, 2023) and for enhancing empathy for diversity (Aerila & Rönkkö, 2015; Rönkkö & Aerila, 2015). Furthermore, the applications of the NaCra approach have emphasised aesthetic, inspiring and versatile learning environments and sufficient adult support when implementing art forms and activities for different learning contents (Rönkkö & Aerila, 2022). It has been tested as a tool to leverage pupils' humour in learning in pre-primary education (Rönkkö & Aerila, 2018) but not in primary education.

This study aims to investigate the role of humour in the context of the NaCra intervention learning process in primary education and to assess the possibility of using humour more consciously in learning. We set the following research questions:

- 1. What is the role of humour in a holistic learning process that follows NaCra guidelines?
- 2. What are the common expressions of humour during a holistic learning process with first graders in Finnish primary education?

2. Humour in the school context

For pupils, humour is something that is funny and makes them smile or laugh out loud. They can use humour in different ways, such as in their peer relationships, academic performance, after-school activities and home life (Dowling, 2014). Humour arises from incongruity with reality (McGhee, 1979, 1984, 2002; Shultz, 1976). However, defining humour is complex because it is influenced by various factors, such as age, gender, education, cultural background, personal experiences and knowledge (Loizou, 2011). Moreover, with pupils, we cannot be sure whether the incongruity is aimed at humour or is a result of a lack of knowledge of reality (Airenti, 2016).

Even the youngest pupils laugh, smile and enjoy humour. The development of pupils' humour is closely linked to family input and to pupils' linguistic and metacognitive development (Del Ré et al., 2020). Therefore, humour develops in stages; it often starts by manipulating concrete objects and moves on to playing with language and concepts. Pupils start consciously using humour during the second year of their lives (McGhee, 2002). By the age of five, pupils begin to appreciate verbal humour; they imitate telling riddles or jokes as they have heard them without first understanding them. This kind of humour emerges with a crucial discovery: a word has two quite different meanings that can be used to fool people (McGhee, 1984, 2002). Pupils incorporate humour into their own stories by the age of six (Loizou et al., 2011). In many stories, humour is related to pupils' own experiences or things that have happened at or after school (Dowling, 2014). Pupils' acts of humour resemble play (Aerila et al., 2017) and develop during interactions with others (Stenius & Aerila, 2022).

The humour used by school-age pupils resembles the way they typically develop (Franzini, 2002). In lower school grades, the way pupils think is generally subjective and concrete, which manifests in their preference for slapstick humour, clowning around, exaggeration, word play and socially unacceptable topics, such as bathroom humour (Franzini, 2002, 2004). Moreover,

there are individual differences in pupils' humour preferences and skills based on their development and the influence of family members, peers, the media and popular culture, as family members, pets and events that take place in their favourite books, cartoons, movies and television shows are the most popular sources of humour (Dowling, 2014).

There is a body of research on the use of humour in an educational context. Even though many of these studies are related to older pupils, they provide insight into the general nature of humour in education. Humour brings playfulness and joy in a variety of educational situations, develops a common understanding and transforms contradictory or ambiguous situations into positive ones (Anttila, 2008). Playfulness and joy bring about a warm and tolerant atmosphere that enhances the formation of and participation in relationships among pupils and between pupils and teachers (Nivala, 2021). Weisi and Mohammadi's (2023) study confirmed that most teachers strive to develop a cheerful and friendly atmosphere in their classrooms through humour, which then serves as a relaxing, comforting and tension-reducing means for engagement.

Teachers are sometimes cautious about using humour because they worry that its use may distract pupils (Anttila, 2008) and have themes not suitable to the school context or the age level of pupils (Stenius et al., 2021). Kholmatov's (2021) study showed that pupils do not feel distracted by humour and that it increases their overall motivation, reduces anxiety and fear and creates a sense of belonging. Nevertheless, when teachers use humour in classrooms, they should be aware of their pupils' cultural backgrounds and the suitability of their humour. Furthermore, their use of humour should be sensitive towards specific learning situations, and successful teaching with humour 'depends on employing the right type of humour, under the proper conditions, at the right time, and with properly motivated and receptive pupils' (Bryant & Zillmann, 1989, p. 74). If teachers' humour is unsuccessful, it can have a detrimental and distancing effect. Humour emerges in interactions, and its skilful use by teachers requires them to know their pupils. According to several studies (e.g. Anttila, 2008; Powell & Andersen, 1985), teachers' humour sometimes aims to consciously tease and criticise others, in which case it does not promote learning.

Humour is related to creativity and has been investigated in connection with creative activities implemented in the educational context. In Leung and Yuen's (2022) study, pupils created pop-up books from visual and literary art, and in their literary art activities, humour was related to alliterative names, hyperbolic humour, multiple meanings, wordplay, personification, metaphors and incongruous storylines. Investigating humour in creative learning processes through stories and craft-making, Rönkkö and Aerila (2018) and Aerila et al. (2023) found that expressions of humour developed during a creative learning process and that pupils often changed from concentrating on the incongruence of the features to forming positive emotional bonds as an outcome.

Aerila et al. (2017) suggested that there should be room for sharing humour in the classroom so that pupils can view their own humour from the perspective of others. In general, the use of humour requires a safe environment, as well as familiar and reliable relationships (Bergen, 2006). The more unsafe an environment, the easier it is for pupils to interpret humour negatively and as laughing at their classmates' expense (Loizou & Recchia, 2019). Using humour in teaching is more complicated than it first appears. Information presented in a humorous way is better remembered when the key concepts of the topic are combined with it (Martin, 2011). However, the humorous material in textbooks and tests was found not to relieve anxiety or to have any other special benefit. It seems that humour is most often utilised and endorsed by teachers, but it may sometimes limit the form and amount of humour among pupils. Stenius et al. (2021) examined the use of humour in Finnish early childhood education groups and found that kindergarten teachers were willing to prohibit pupils' use of scatological humour.

3. Method

3.1. The NaCra approach

The study data were collected through an intervention that applied the NaCra approach and used humour as the main theme. The NaCra approach is an application of Kolb's (1984) experiential learning approach, which aims to provide comprehensive learning experiences and promote the overall growth of learners. The experiential learning process in the NaCra approach follows spirally advancing four-phase activities. Each activity consists of a motivation and an orientation phase at the beginning, followed by a core assignment and a reflection phase at the end. NaCra processes usually consist of more than one activity, each with its own learning goals and content (Rönkkö & Aerila, 2015).

In the motivation and reflection phases, shared discussions and personal reflections are central, and one of their aims is to connect the learning process to the pupils' experiences aroused by or prior to the learning process (Aerila et al., 2019). A typical means of orientation is a story from a book that fits a chosen theme and appeals to the participants. The mental images created by these stories bring the topic to life and create a common context for the group (Rönkkö & Aerila, 2022). All the activities in the learning cycle are implemented using arts-based learning, as art is a way to make one's own learning, thoughts and experiences visible to others and to oneself (Aerila et al., 2019; McWilliams et al., 2014). Art activities are created in such a way that they enable pupils to meet specific learning goals while also allowing them to implement their own creativity and make their own choices (Aerila & Rönkkö, 2015; Rönkkö & Aerila, 2015). The reflection phase focuses on sharing learning experiences through the outcomes of activities (Aerila et al., 2019).

In the NaCra processes, activities are joined together by a common topic or theme. A well-chosen theme supports engagement in the learning process and gives the participants material and a common ground for learning. Humour has not previously been tested as a theme for multicycled NaCra processes. However, previous studies on arts-based activities (Aerila et al., 2017, 2023; Rönkkö & Aerila, 2018) have shown that humour is an inspiring starting point in arts-based activities and that it helps pupils come up with details in their artistic outcomes and learn about the individual nature of the sense of humour.

3.2. Study context

The intervention was conducted in two primary groups in an urban area in western Finland during the 2021 spring term, from the end of April to the end of May. The intervention was planned by two researchers and involved the teachers of the primary groups alongside a project worker who was responsible for creating a video for the first motivation phase and saving the research material on a cloud service. In this study, the processes and outcomes of a group of 36 pupils aged 7–8 were investigated. A total of 38 participants had initially been included, but one participant did not provide consent for his or her involvement, and another participant was absent during the implementation of the study.

The humour-themed NaCra intervention comprised 10 days of 7 simultaneous activities: humorous character, humorous story, stick puppet, soft toy, painting for kamishibai theatre, rehearsing for the kamishibai theatre presentation, and kamishibai theatre presentation (for more details about kamishibai theatre, see, e.g., Aerila et al., 2021). The activities were planned in a manner that allowed the pupils to work both individually and in groups. In Figure 1, the intervention is presented in the NaCra approach.

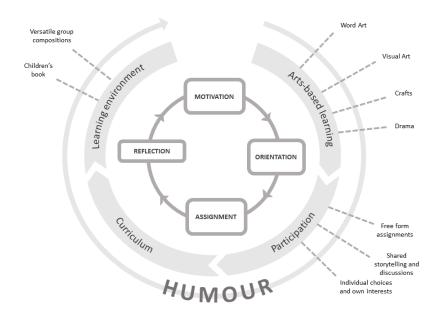


Figure 1. Humour-themed intervention in the NaCra approach context

The process started with a fragment of a humorous book called *Dog Man* (2018) by Dav Pilkey. This book was chosen due to its many manifestations of humour. Furthermore, it is recommended to pupils of the same age in the intervention. In the book, Dog Man's opponent, Petey the Cat, had stolen all the words from books, which led people to become stupid and ignorant. The fragment was full of action, and it contained aggressive and scatological humour, wordplay and incongruences.

The fragment was read aloud to the pupils through a video, and the humorous elements were emphasised with the addition of visual cues, mainly emoticons. The aim of reading aloud this fragment of a book—accompanied with small-group discussions on humour—was to encourage and enhance pupils to utilise any kind of humour.

After this motivation, the pupils were oriented to the first activity—a humorous character. The instruction for this individual activity was to create a character that would make other pupils laugh. The instructions for the activity were to fill in a sheet of paper resembling a friend book sheet. It contained questions about the character's favourite food and activity and whether the character had superpowers. After this orientation, the pupils started drawing their humorous characters using colour pencils. Later, these humorous characters served as motivation for the following activities: story, stick puppet and soft toy.

After creating the humorous characters individually, the collaborative storytelling activity began. This activity was conducted by pupils presenting their humorous characters and was implemented in groups of 3–4 pupils. The groups were randomly formed by the teacher. All the characters were presented similarly; all pupils read the details of their humorous characters from the sheets and presented their drawings of their characters. After the pupils' presentation, an adult read aloud a summary of the fragment of Dav Pilkey's book. This summary was written by researchers:

Petey the Cat, Dog Man's enemy, had stolen all the books in the world, and since people didn't read anymore, they became quite like bums. Dog Man also became a chump, and he didn't know how to solve the problem. Fortunately, Dog Man had realised he should ask for help from his friends [names of the characters]. So, one morning, they decided to set out to solve the problem.

The summary of Dav Pilkey's book was complemented by a sentence in which all the humorous characters of the group were mentioned and the characters were asked to bring the missing letters back to the books. The pupils were asked to invent an ending for the summary and incorporate their characters into this ending.

The activity resembled an individual story ending method in which the pupils were free to continue the fragment as they wished (Aerila et al., 2019), and there were no turns or rules regarding the content. The storytelling activity ended in reflection, in which the pupils listened to the story they had created and had a chance to change it if they wanted (for more details on the story crafting method, see Aerila et al., 2023; Karlsson, 2009).

This collaborative activity continued with individual activities. The third activity aimed to transform the humorous character into a stick puppet, which would later serve as a character in a kamishibai theatre presentation and a design for a soft toy. The aim of the stick puppet activity was to investigate a technique called *frottage*. While creating the stick puppets, the pupils were allowed to either copy their original drawings of their humorous characters or to develop them further. Each character was first drawn on a piece of paper, laminated, cut and taped to a stick.

In the fourth activity, the stick puppets functioned as a design plan for the pupils' soft toys. In the process of implementing these designs, the pupils were assisted in drawing outlines and frottage on fabric using the stick puppets, which had been scanned and printed. The pupils then drew and coloured their designs onto a canvas fabric using wax crayons and fabric dyes. Once the fabrics had dried, the pupils cut along the outlines, leaving a seam allowance. The researchers sewed the front and back pieces together, leaving an opening for turning. In the subsequent step, the pupils filled the soft toys with stuffing and sewed the opening shut. At this point, they were allowed to add more details to their toys.

Along with the craft activity, the pupils started preparing for the kamishibai presentation. In the fifth activity, the same groups as in the storytelling activity created background paintings for the kamishibai theatre presentation. For this activity, the collaborative stories were divided into drama scenes, and each member painted one set. The activity was conducted using water colour painting, representing the visual arts. The sixth activity complemented the fifth activity in the sense that it was also part of the preparation for the kamishibai theatre performance. In this activity, the pupils practised empathetic and fluent reading aloud. The object of the reading was a story told together, and the goal was for each child to read part of the text in the performance.

The learning process ended in the seventh activity, which was the kamishibai theatre presentation (Figure 2). In this drama activity, all the outcomes of the process were brought together. The stick puppets were the characters of the theatre presentation, the paintings served as the background set of the stage, the stories were read as the script, and the soft toys were present as the audience with the pupils.



Figure 2. A screenshot of the kamishibai presentation

3.3. Data and data analysis

The study data consisted of the outcomes of the NaCra intervention: friend book sheets, drawings of a humorous character, humorous stories, stick puppets, soft toys, paintings (i.e. the background set for the kamishibai theatre) and the kamishibai-theatre presentation. The observations of adults (teachers and researchers) were used as secondary data.

The data were analysed using qualitative content analysis (Krippendorff, 2019), which was implemented in accordance with the two research questions. To answer the first research question, the data were analysed from the perspective of a holistic learning process and to estimate the role of humour in the process. This phase of the analysis started as a data-driven analysis and continued as a more theory-driven analysis in which the observations made from the data were compared with previous research on the NaCra approach (Aerila & Rönkkö, 2023; Rönkkö & Aerila, 2018, 2022) and pupils' learning according to the Finnish national curriculum for basic education (FNBE, 2014). The second research question was answered mainly through a theory-driven analysis of the humour visible in the pupils' outcomes. In this phase, the data were investigated from the perspective of the individual and small-group outcomes in the activities and the whole group. The aim was to classify the humorous features in accordance with previous research (Loizou, 2011; Pitri, 2011; Aerila et al., 2017) and identify the most remarkable features of humour in the data.

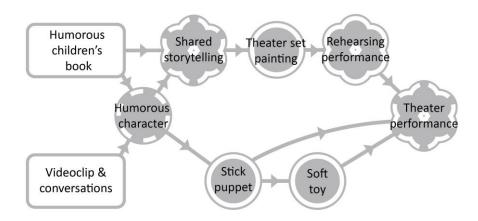
In this study, the data were presented without any personal information about the pupils, but the outcomes were presented using the names of the humorous characters. These names were also included in the straight quotes or photos presented in section 4. In general, these quotes and photos serve as representative examples of the findings.

4. Results

4.1. The role of humour in a NaCra intervention

In this study, humour was incorporated into literacy, visual arts and crafts lessons during a NaCra intervention. Humour was the common thread in all the activities sourced by the first activity, in which a humorous character was created. Otherwise, humour was not a perquisite of

the activities given by the teacher. Figure 3 presents the activities implemented during the project, the implementation of the activities socially or individually, the role of humour and the relationship of the different activities with the other activities and the whole NaCra intervention.



Dashed line=humour evolved // A multi-shaped circle=social activity // Circle=individual activity // Arrow=the progress of the activities

Figure 3. Humour in NaCra intervention

Figure 3 shows that during the intervention, the pupils used the first activity as a motivation for other activities, which supported the engagement and personal attachment to learning and having humour present throughout the process. In general, the pupils were happy with their characters. They did not seem to want to develop them further and copied them in detail as the learning process progressed. From the perspective of the effectiveness of the learning process, having the first activity as a motivation for other activities helped the pupils to focus on the subject-centred aims of the activities, such as designing the puppet or the soft toy. According to the teacher, the static nature of the soft toys was partly due to the instructions, as the pupils were guided to use the drawing as a model for the soft toys. In Figure 4, a character called Mauro is presented as a soft toy and as a stick puppet. Even though they were replicas of each other, they were unique compared with the characters of the other pupils and illustrated the personality of the child. Such a design approach necessitates a child's to plan, from the initial sketches to the product itself. This is notably more demanding than merely crafting based on a pre-established model.



Figure 4. Mauro as a soft toy and a stick puppet

All the activities in the NaCra intervention reached the curricular aims of the individual subjects and the cross-curricular aims of the project. During the project, the pupils wrote texts; learned about the structure of a story; were recommended a children's book; participated in a drama performance, practised reading fluency for the drama performance and expressed themselves through paintings, drawings and the frottage technique; and learned to cut out materials, glue them, follow and copy a model and try out some craft techniques (see the subject-specific aims of mother tongue and literature, crafts and visual arts FBNE, 2014). Moreover, they learned to cooperate among themselves and work on a long-term project (see the aims of learning to learn and social skills in FBNE, 2014). Table 1 presents the subjects, the specific subjects and the learning to learn skills practised in the activities.

Table 1. Characters of the stories by group

Activity	Subject-centred skills	Learning to learn skills
Friend book sheet and drawing	Writing full sentences Practicing handwriting Using imagination and expressing ideas by writing and drawing	Following written instructions Working individually by writing and drawing
Collaborative storytelling	Presenting own character and reading aloud own sentences Oral communication skills Learning the structure of a story Solving problems using imagination Listening comprehension skills	Group work skills Concentration and remembering the details of the shared story Conversation skills: listening to others, expressing one's own ideas Negotiation skills
Stick puppet	Creating a copy of own character Learning the frottage technique Clueing a stick to the character	Working individually Paying attention to the details of a drawing
Theatre set painting	Reading comprehension Expressing the interpretation of a text in the visual arts Painting with watercolours	Working individually Paying attention to the details of a text Deciding which details are relevant and which are not
Soft toy	Designing a soft toy based on a stick puppet Making a pattern for a soft toy Printing the fabric Cutting the fabric based on the pattern Stuffing the soft toy and sewing the filling opening by hand	Focusing on the form and details Working individually Working with care Teacher has sewn the soft toy edges
Rehearsing the kamishibai performance	Practicing empathetic reading aloud and fluency Oral communication skills and participating in a presentation Preparing for a performance	Practicing teamwork Managing uncertainty Focusing on and remembering one's own role and the details of a presentation

During the learning process, part of the activities was utilised as a group work, in which the pupils used the humorous characters. This seemed to enhance equality among the pupils in the group work and gave them confidence while presenting their characters, participating in the storytelling and making stick puppets and soft toys. This was evident in the way all the pupils wanted to participate in all the activities, all the characters were included in the stories and they relied on their idea of their characters throughout the intervention.

4.2. Pupils' expressions of humour during the NaCra intervention

During the intervention, the pupils produced humour or humour evolved in three activities: the first activity of creating the humorous character, the second activity of collaborative storytelling and the third activity of presenting a kamishibai theatre. In other activities, the pupils mainly copied the funny details from the humorous character or story, and the focus was more on implementing the subject-centred learning aims. Nevertheless, humour was present in every activity, as the first and second activities motivated the other activities.

In the first activity, the pupils visualised their individual perceptions of humour by creating humorous characters through drawing and writing. In most cases, the pupils produced humour in accordance with empowerment theory¹, and scatological humour was widely used, especially in the names of the characters. The use of scatological names, such as Little Fart, Loose Ant, Colourful Pee, Super Poop and Stinky Bird Sausage, was consistent with previous research, as it is considered an easy way to create something comical, unusual and inappropriate (see, e.g. Norman, 2016). Incongruity, which is a perquisite for humour, was mainly illustrated in the drawings: they contained both feature and colour violations as well as scatological and hyperbolic details. Therefore, in the writing assignment, the characters were depicted as ordinary and resembled the everyday lives of the pupils, including details of their hobbies, game world and popular culture in general. For example, Pekka (Figure 5) is depicted in the friend book sheet as an ordinary man, but in the drawing, he has three legs and three eyes. His favourite food is sushi, and he enjoys karting. Teleportation, which is popular in many animated series, is one of his superpowers. In this sense, the results are similar to the findings of Pitri's (2011) study, which found that pupils' humour included characters and events from their daily lives and that the humorous features were usually absurd, incongruous and playful and included blunders and naughty details from their experiences and environments.

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¹ The empowerment theory means children purposefully or unintentionally violate adults' expectations and rules or create violence (Loizou, 2005). Loizou and Kyriakou (2019) also included scatological humour (i.e. toilet humour) in the empowerment theory as a representation of violating social rules and expectations.



Figure 5. Pekka with three legs and three eyes

In general, the humour pupils produced during the first activity was in accordance with previous research (Aerila et al., 2023; Franzini, 2002), as it involved the most common expressions of school-aged pupils' humour, such as scatology, feature violation, hyperbole and applications of pupils' media culture. According to the results, most pupils seemed to think that scatological humour was funny to others and chose to use this stereotypical manifestation of humour (for more details on pupils' stereotypical humour, see Chapman et al., 2007; Loizou et al., 2011; Van der Geest, 2016). Most drawings contained illustrations of poop, which was usually an irrelevant detail that was just included to add to the humorous effect. According to Van der Geest (2016), the purpose of scatological humour is to provoke laughter by presenting a story or situation that is out of the ordinary and perceived as funny. This was also apparent in this study, with one child even saying that he drew a poop because it was usually funny to others.

When investigating the drawing and the friend book sheet of the first activity, it should be noted that, for the pupils, the drawing had a stronger role in the NaCra process, as the details in the drawing remained throughout the process, but the details in the friend sheet were forgotten. Moreover, most of the humorous details were depicted in the drawings, not in the friend sheet. The friend sheets mainly contained ordinary information on their favourite food being macarons or their favourite hobby being football. Conversely, the drawings had many additional details to show the humour in the character, such as features and colour violations, unnecessary and often hyperbolic elements and features from popular culture. This finding is supported by Sloan's (2009) study, which found that for pupils under 10 years of age, it was more natural to draw to express ideas than to write.

The second activity was the most dynamic phase of the NaCra intervention from the perspective of humour. In this activity, the pupils were asked to work in groups, incorporate all the characters and solve the problem presented in Dav Pilkey's book. During this shared storytelling activity, the pupils were able to invent consistent stories with their humorous characters as the main characters. Despite the humorous—often scatological or hyperbolic—features of the characters, they became friends at the end of the story. All the stories had happy endings and solved the problem posed at the beginning of the activity. Humour played a central role in problem solving. For example, in the story of Mauro, Lilli, Dog Perdi and Rocky, the characters creatively used the poop theme, and many of the details had excrement as a key

feature. From the perspective of literacy skills, the story represents a typical one told by seven-year-olds: it has many details irrelevant to the main plot, consistent main characters and many adventures, some stereotypical phrases from traditional stories and many details from the pupils' own world (Aerila & Kauppinen, 2021).

This is a story about Mauro, Lilli, Dog Perdi and Rocky. Mauro's superpower is flowers. Lilli plays basketball and likes mashed potatoes. Dog Perdi plays ice hockey and can poop rainbows. Rocky also plays ice hockey and enjoys blowing up buildings. First, they went to the bathroom to poop. Then they set out on their journey. Soon, they needed to go again. Mauro went to pee in the bushes. Then they continued on their way. 'Okay, no more bathroom breaks for today!,' Mauro said. They saw a school and went inside to search every classroom for the books. They then saw Dog Man. Rekku and Dog Perdi started to fight him. Rekku used his power to create rainbow flowers. They tied up Dog Man and left to search for the books in another school. They took off to the sky. Rocky was able to make stairs out of poo, and they all climbed up the poo stairs. Then Rocky wondered where the books were. They set off to another world to find the books. Petey the cat had sent the books to another world, kind of like in Minecraft. They decided to jump into the TV and Minecraft, and there was an endless portal from there. Then Mauro said, 'Why can't we make books ourselves. We have hands!' 'But I don't have hands!,' the others said. They went to Rovaniemi and then back home. Mauro pooped in his pants. Truck said, 'pshhhh', and the snake bit Dog Perdi on the butt. They fetched one book from one portal that contained all the books. Then there were endless snakes and zombies. In the end, they were able to defeat the snakes and zombies with cooperation and poop power, but Rocky got an orange poop on his pants. At home, everyone pooped in their pants, and everyone laughed. They all lived happily ever after.

The last activity in the NaCra intervention was the theatre presentation. In this activity, all the pupils participated as performers and as audiences. It was a celebration of a successful project and of their humour. During the theatre presentation, the pupils shared a multimodal version of their collaboratively created humorous stories and had their individual humorous soft toys by their side in the audience. The end of the process highlighted the individual and communal nature of humour. The pupils took the stick puppets and the soft toys home to remind them of the project. As in our previous projects (Rönkkö & Aerila, 2018), the concrete artefacts seemed to transform humour into feelings of closeness and happiness. The creative activities and humour worked well together, as both meant incorporating one's inner thoughts and personal perceptions into the assignments (for more details on creative activities, see McWilliams et al., 2014; McClure & King Fullerton, 2017). This result is in accordance with several previous studies. For example, Kuiper (2009) found that sharing a sense of humour implies a similarity that breeds closeness. The feeling of closeness and participation in the learning process was without a doubt enhanced by the fact that the teachers accepted all the manifestations of humour, whether or not they were consistent with their perception of suitable humour for school. In other words, the teachers' actions and the structure of the NaCra intervention created a permissive atmosphere for participation and manifested in the happy stories.

5. Discussion

Heinz et al. (2021) divided humour into the following skills: understanding, appreciation and production of humour. The NaCra intervention presented in the study is an example of how to practise humour skills in an educational context. The main result of the study is that pupils' humour can be incorporated into various activities. However, to support development in humour and learning from each other's humour, there should be socially implemented activities with an assignment to actively incorporate the individual expressions of humour together. Moreover,

pupils in the early years of education can benefit from the possibility of expressing their thoughts in modalities other than writing.

In general, humour should be used more consciously in education. Teachers should have more research-based information about pupils' humour, how humour could be incorporated into education and humour skills. Humour is not only about telling jokes but is also about maintaining collective joy, and it is something in which the teacher can also participate (Bell, 2009). When pupils' creativity and humour are given space, they can give adults much information about the things that matter to them (Hohti, 2016).

During the intervention, humour seemed to enhance a positive learning atmosphere, making learning more engaging and creating a sense of belonging (for more on a sense of belonging, see McMillan & Chavis, 1986). Humour is a product of communities and pupils' cultural practices. Therefore, pupils should be provided with opportunities to practise humour in different contexts to learn what humour means and how to be humorous (Loizou, 2011). Using this kind of learning process, individual and shared assignments could help pupils learn how to use humour constructively and positively. Humour is often taken for granted and seen as stable, but it is a skill that can be developed. Stories are effective tools for producing and learning about humour, as they are familiar to pupils in the context of education, starting in kindergarten. (Loizou, 2011) However, the current study indicates that other creative activities and longitudinal learning processes could be beneficial. This study highlighted the fact that in the early years of education, drawing could be a more effective way to ideate than writing, which is a skill that is learned and requires the full attention of a child. Using humour in the ideation phase of, for example, creating craft products can make the outcomes more personal.

Creativity, stories and humour are related to each other and are valued assets in learning, well-being and participation. However, they are not appreciated highly enough in the educational context and are usually implemented only on the teachers' terms (Backman-Nord et al., 2023; Fovet, 2009; McWilliams et al., 2014). There is a need for hands-off approaches, that is, teachers need to avoid stifling young pupils' creativity (Wright, 2018). In the current study, the pupils had much freedom in humour and creativity, and the separate assignments were combined with humour. This created a space for pupils' voices, individual expressions, creativity and collaboration (De Bruin et al. 2018). The essence of humour is its positive disposition and communication, and children use humour to bond and gain attention within their peer relationships (Rönkkö & Aerila, 2018; Stenius & Aerila, 2022). In this study, humour contained positive emotions, and during the process, the more stereotypical or negative features, such as toilet humour, disappeared, resulting in happy events (Aerila et al., 2023).

Educators in early childhood education and primary schools have been exploring new ways to enhance the potential of pupils by fostering a positive social atmosphere among them (Aura et al., 2023). This study, alongside that of Martin (2011), stresses that humour is a powerful tool for creating an emotionally and socially positive environment in which humour acts as a bridge between the pupils and between the pupils and the teacher. This means that by creating a positive atmosphere (Aura et al., 2021), humour has the potential to help pupils focus on learning (Martin, 2011). Instructors use humour in their classrooms for a variety of reasons, the most important of which is to enhance learning (Wanzer et al., 2010).

6. Conclusion

In pupils' early years, humour is an emotional and cognitive asset because it helps them cope with stressful situations, offers them a means to express difficult topics, enhances their feeling of belonging and entertains them when they are tired or bored. Although teachers assess the outcomes of humour positively (e.g. through better working relationships, positive learning

outcomes and other social, emotional and behavioural benefits), they seldom utilise humour as a source for or a component of activities (Fovet, 2009) or develop a sense of immediacy through humour in the classroom (Serafini & Coles, 2015). Furthermore, adults often assume that they can understand how pupils experience humour without exploring the viewpoints of the pupils themselves. Understanding humour from a child's perspective can advance knowledge of pupils' humour and offer insights into its use in coping with life stressors in childhood (Dowling, 2014). This study shows that humour can be a source of a long-term process and that the expressions of pupils' humour can be steered by activities, preliminary materials and collaborations with other pupils and the teacher.

7. Limitations and ethical considerations

A significant limitation of the study is that the data were gathered exclusively from two classrooms. The learning process was managed by two teachers, following the directions provided by the researchers. In addition, during the intervention period, specific restrictions related to the COVID-19 situation in Finland were in place. Although the pupils had been going to school since the start of the academic year in fall 2021, the researchers could not be present in the school, except during the joint storytelling sessions held in the school yard.

A consent form and a General Data Protection Regulation sheet were provided to the pupils and their parents. The pupils were informed in advance and consulted again during the study. The participants were given the opportunity to withdraw from the study at any time. The stick puppet presentations were video-recorded, and the audio recordings were of the pupils reading their stories to secure their anonymity.

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