Informing the Pedagogical Design of a Digital Story Journaling Proposal through Self Determination Theory Principles

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Abstract

This manuscript presents a pedagogical proposal for English as a Foreign Language (EFL) classrooms, as informed by the principles of Self-Determination Theory (SDT). The proposal centers around a digital storytelling-based learning project called the 'digital story journal' (DSJ), designed to enhance motivation for learning according to SDT by satisfying students' basic psychological needs. A comprehensive literature review establishes the relevance of storytelling, digital storytelling, and journaling in EFL contexts, as well as the application of SDT in language learning. Tackling a research gap in SDT-informed digital storytelling in EFL classrooms, this manuscript fills the void by presenting a theoretical framework and an SDT-based DSJ pedagogical proposal. The manuscript demonstrates the connection between digital storytelling and SDT principles, emphasizing the importance of supporting autonomy, competence, and relatedness to foster learner motivation. This work confirms that SDT principles can effectively guide the design of a pedagogical proposal for teaching digital story journaling in EFL classrooms in order to promote higher levels of learner engagement and motivation.

Este manuscrito presenta la propuesta pedagógica para aulas de inglés como lengua extranjera (ILE), fundamentada en los principios de la Teoría de la Autodeterminación. La propuesta se centra en un proyecto de aprendizaje llamado 'diario de narraciones digitales'. Diseñado para fomentar altos niveles de motivación según la Teoría de la Autodeterminación, el proyecto 'diario de narraciones digitales' atiende a las necesidades psicológicas básicas del alumnado. Una revisión bibliográfica exhaustiva establece la relevancia de la narración, la narración digital y el diario en contextos de ILE, así como la aplicación de la Teoría de la Autodeterminación en el aprendizaje de idiomas. Abordando una brecha de investigación en la narración digital basada en la Teoría de la Autodeterminación en las aulas de ILE, este demuestra la conexión entre la narración digital y los principios de la Teoría de la Autodeterminación, enfatizando la importancia de apoyar la autonomía, la competencia y la relación

para fomentar la motivación del alumnado. Este trabajo confirma que los principios de la Teoría de la Autodeterminación pueden guiar eficazmente el diseño de una propuesta pedagógica para enseñar el diario de historias digitales en aulas de ILE con el fin de promover niveles más altos de motivación en el alumnado.

Contents

Acknowledgements 2

Abstract 3

Contents 5

Informing the Pedagogical Design of a Digital Story Journaling Proposal through Self-Determination Theory Principles 8

Literature Review 10

Storytelling 11

Digital Storytelling 12

Journaling 14

The Digital Story Journal 15

Technology in the Classroom 15

Motivation 16

Self Determination Theory 17

Self Determination Theory in EFL and Language Learning 20

Goal & Objectives 23

Methodology 23

Framework for the Pedagogical Proposal 24

Creating a Digital Story 24

Creating a Digital Story Journal 26

DSJ Characteristics as Related to SDT 27

SDT Needs-Supportive Strategies 29

Digital Story Journal Proposal 34

DSJ Project Overview 34

Software Options to create a Digital Story Journal 36

Intro Session: Introduction to the Digital Story Journal Project 36

Digital Story Journal Project #1: A story about a dish or recipe 36

Digital Story Journal Project # 2: Identity 38

Digital Story Journal Project # 3: “Op-Ed” 39

Procedure Guide 40

Introductory Session Procedure Guide 42

8- Session Procedure Guide for Projects 1-3 46

Recommendations for Assessment & Feedback 71

Discussion 72

SDT needs-support in the DSJ prompts 73

DSJ Prompt # 1: A story about a dish or recipe 73

DSJ Prompt # 2: Identity 73

DSJ Prompt # 3: “Op-Ed” 74

Limitations 75

Future Research 75

Conclusion 76

References 78

Appendix A 87

Appendix B 90

Appendix C 95

Appendix D 96

Informing the Pedagogical Design of a Digital Story Journaling Proposal through Self-Determination Theory Principles

This manuscript presents the theoretical framework of a pedagogical proposal informed by the principles of a motivational theory called Self-Determination Theory (SDT) for use in the English as a Foreign Language (EFL) classroom. The resulting proposal is a digital storytelling-based learning project: a 'digital story journal' (DSJ), that has been designed through an SDT-informed lens and aims to satisfy students' three basic psychological needs in order to generate higher levels of emotional and mental engagement, which can facilitate deeper learning.

There is an abundance of literature about SDT in the EFL context (e.g., Albarai, 2021; Dincer et al., 2012; Dincer & Yesilyurt, 2017; Noels et. al, 2019; McEown & Baldwin, 2019), showing that when students' basic psychological needs are satisfied in the classroom, students are likely to be more autonomously motivated. There are also a significant number of studies and review papers concerning the use of digital storytelling in the EFL classroom (e.g., Abdolmanafi-Rokni & Qarajeh, 2014; Arroba & Acosta, 2021; Christiansen & Koelzer, 2016; Mohamed Salama Eissa, 2019; Razmi et al., 2014; Soler Pardo, 2014), which indicate that digital storytelling can be used to develop language skills, especially speaking and writing skills. In the convergence of these two traditions, still remains to explore the use of digital storytelling in EFL through an SDT lens. This manuscript attempts to contribute to filling this gap in the research by presenting a SDT needs-satisfying theoretical framework for a digital storytelling-based pedagogical proposal.

The following manuscript starts with a literature review for the theoretical framework of this proposal. Storytelling, digital storytelling, journaling, and digital story journaling are introduced and examined as language learning activities. SDT is explained thoroughly as a theory and as applied in EFL contexts.

The next section presents the goal and objectives of the present work followed by the methodology section.It is argued that a digital story journaling pedagogical proposal for the EFL classroom can be designed to be SDT-needs supportive, and thus increase EFL learner motivation; and furthermore, that the DSJ project can be characteristically SDT needs-supportive. As a theoretical proposal, the objectives were achieved via literature research within SDT in education, SDT in language learning, SDT in EFL, storytelling, digital storytelling, and journaling.

The next section presents the framework for the pedagogical proposal. This section first presents the process for creating a digital story and a digital story journal. Next, the unique characteristics of a digital story journal project are explained considering how these characteristics can promote SDT basic needs satisfaction. Then, SDT needs-supportive teaching strategies are listed. The DSJ project proposal and accompanying unit procedure guide are presented next alongside the applied SDT principles. Recommendations for SDT-informed assessment and feedback practices are given.

The next section presents the discussion and limitations of the present work together with some suggestions for future research to advance the subject. Lastly, the concluding section summarizes the content of the manuscript, and what has been researched and proposed is reiterated.

Sample teaching materials, these being an informational handout, an example of a completed storyboard, a storyboarding template, and example of a rubric for assessment are included as appendixes.

Literature Review

This work intends to demonstrate that the principles of Self-Determination Theory can inform the pedagogical design of an EFL digital story journaling project that aims to satisfy students' three basic psychological needs in order to generate higher levels of student motivation.The starting point for this pedagogical proposal is based on the belief that digital story journaling can be used as an effective language learning tool in the EFL classroom, similarly to how digital storytelling has been used effectively as a language learning tool in the EFL classroom (e.g., Abdolmanafi-Rokni & Qarajeh, 2014; Arroba & Acosta, 2021; Mohamed Salama Eissa, 2019; Razmi et al., 2014; Soler Pardo, 2014). Digital story journaling is proposed to be an adaptation of digital storytelling that combines digital storytelling with elements of journaling.

It is suggested that digital story journaling is characteristically needs supportive, combining an innate human practice—making meaning through narrative (Garcia & Rossiter, 2010)—with using technology in language learning (Deligianni-Georgak & Pouroutidi, 2016). Combining these practices—journaling storytelling and technology—requires that students practice their language skills alongside the use of technology in order to engage with the learning project. As with any learning project, students will engage with the project if they are motivated to do so. Therefore, it is important that teachers create a learning atmosphere that fosters high levels of student motivation. Self Determination Theory as applied to the EFL classroom provides a framework for teachers to understand and foster motivation, and thus a digital story journal project can be designed within the SDT framework to improve engagement and motivational forces in the classroom.

Although a significant amount of research on the use of digital storytelling in the EFL classroom has been done, there seem to be fewer studies that specifically examine motivation as related to digital storytelling in the EFL classroom (e.g., Ek & Holmgren, n.d.; Hava, 2021; Tariri et al., 2015). Furthermore, there are very few existing studies that examine digital storytelling use in the EFL classroom through a Self Determination Theory lens (e.g., Adara & Haqiyyah, 2020; Al-Amri, 2021). Thus, the present manuscript attempts to begin to fill this gap in the literature.

Storytelling

Storytelling is undoubtedly an important part of human communication. Being one of the oldest ways that humans have used to communicate and interact with each other (Edosomwan & Peterson, 2016), and existing universally across cultures (Atta-Alla, 2012; Edosomwan & Peterson, 2016), storytelling has been used throughout history to transmit knowledge and information (Daniels & Venter, 2023).

Storytelling can also be used as a tool to develop language skills. Students can listen to their peers' stories, tell their own, and through this process discover their own voice in the new language (Nicholas et al., 2011). EFL students can benefit from learning how to tell their stories in English, as being able to contribute to conversation through narrative is a valuable discourse skill (Holmes & Marra, 2011).

For the purpose of this pedagogical proposal, storytelling is defined as a narrative, "a description of events" (Cambridge University Press & Assessment, 2023). Likewise, Miller (2011) defines storytelling as "relating a series of events" (p.1). Lucarevschi (2016) describes storytelling as a human expression that uses narrative structure to refer to ourselves and others, as well as to real or invented worlds, through language. Anderson (2010) defines storytelling as the act of presenting, via some avenue of communication—be it oral, written, or visual—a truthful or fictional event, or series of events.

'Storying' one's experiences, that is, making meaning through narrative, is innate in human beings (Garcia & Rossiter, 2010). Stories can be told in formal or informal settings (Alterio & McDrury, 2003). Oral stories can be exchanged during informal conversation or in more structured, formal settings like at school, at work, or at a church or temple. Stories abound around us in daily life (Nicholas et al., 2011). Alterio (2002) states that storytelling is a cross-cultural means of communication that humans experience since our early learning environments, and that from a young age, we make sense of the world via stories.

Building on the essential nature of storytelling, it is also an accessible pedagogical tool for language teachers that can be used for practice and improvement of learners' language proficiency in listening, reading, writing, and speaking (Atta-Alla, 2012). Storytelling can be incorporated into the EFL classroom in a variety of ways, including having students create or recount their own stories or having stories presented to them by the teacher. It is a way for learners to find their voice and learn new vocabulary and grammar (Nicholas et al., 2011). Atta-Alla (2012) notes benefits such as the decrease of students' affective filter and enhancement of students' verbal skills when using storytelling in the EFL classroom (Atta-Alla, 2012).

With the advent of digital technologies, stories can also be shared through digital media. Whether within or outside the bounds of the classroom, storytelling through digital means has become increasingly accessible, and one type of story told through digital avenues that has arose is called 'digital storytelling' (Daniels & Venter, 2023). In the following section, the characteristics and pedagogical benefits of digital storytelling are presented.

Digital Storytelling

Digital storytelling is a modern form of the age-old practice of storytelling; a contemporary, technology-based one, that can be used as a tool for English language learning. The scope of the present

literature review indicates that the use of digital storytelling in the EFL classroom has been substantially researched (e.g., Abdel-Hack & Helwa, 2004; Abdolmanafi-Rokni & Qarajeh, 2014; Arroba & Acosta, 2021; Christiansen & Koelzer, 2016; Mohamed Salama Eissa, 2019; Rahimi & Yadollahi, 2017; Razmi et al., 2014; Soler Pardo, 2014). Some outcomes of EFL student learning through digital storytelling include enhanced narrative writing skills (Abdel-Hack & Helwa, 2004), improved speaking skills (Abdolmanafi-Rokni & Qarajeh, 2014; Arroba & Acosta, 2021; Mohamed Salama Eissa, 2019), and positive impacts on student motivation (Soler Pardo, 2014; Razmi et al., 2014).

Digital storytelling, in the broadest terms, is simply the practice of using digital tools to tell a story (University of Houston College of Education, n.d.). It first began as a movement in California, United States, in the 1990s; led by Dana Atchley, Joe Lambert, Nina Mullen, and Patrick Mulligan (Al-Amri, 2021; StoryCenter, n.d.).

Digital stories join the art of storytelling with some combination of digital media—including, but not limited to; images, text, audio, narration, music, and video; which are then combined using an editing software to present a story or information around a theme or point of view that can be viewed in video format (Robin, 2016). Not all of the aforementioned media elements are mandatory to include in a digital story, however. For example, a digital story could be as simple as an audio narration coupled with a single photograph, presented in video format.

Learners practice the four language skills when creating a digital story (Razmi et al., 2014, p. 1544). Furthermore, learners who create digital stories will practice using technology in the classroom, which is quite relevant in the 21st century, as new technologies have had considerable influence on educational environments, connecting the classroom to the rest of the world (Moradi & Chen, 2019), and offering educators a new approach to teaching (Soler Pardo, 2014).

Digital storytelling is an interesting approach to EFL pedagogy, as its unique characteristics can be employed to create an engaging learning project which may promote student motivation and deepen student learning. Compiling short stories in a digital format, as if journaling, can also provide a novel take to digital storytelling.

Journaling

There are many definitions of the word 'journal.' Merriam Webster and Cambridge online dictionaries' definition of 'journal' have been referenced: "a record of experiences, ideas, or reflections kept regularly for private use: diary" (Merriam-Webster, n.d.), and "a record of what you have done, or of descriptions or thoughts, written each day or frequently over a long period; a diary" (Cambridge University Press & Assessment, 2023). Thus, journaling can be defined as the action of regularly keeping a record of one's experiences, descriptions, thoughts, and ideas. Journaling can be done by hand with pen and paper, and as mentioned earlier, it can be done electronically/digitally as well. For the purposes of the proposed project, the term 'journal' is used to describe a collection of stories, ideas, reflections, and images by one student author, for both personal use and for sharing with peers and teacher, with each entry created sequentially over a given period of time.

Journal writing as an activity in language learning has been shown to have notable positive outcomes when implemented in the EFL classroom (see Kambara, 2010; Rokni & Seifi, 2013; Sholah, 2019; Sudirman et al., 2021; Tuan, 2010). Some benefits of journaling in the EFL classroom include enhancement of students' problem-solving insights, expressiveness, communication skills, critical thinking skills, (Sudirman et. al, 2021), writing skills, grammar knowledge (Rokni & Seifi, 2013), writing motivation (Sholah, 2019), and enhancement of the bond between teachers and students (Tuan, 2010, p. 81).

The Digital Story Journal

As far as the author is aware, no prior studies which introduce or explore the merging of digital storytelling and journaling have been produced thus far. Thus, the 'digital story journal' may be a new term and a novel concept—a merging of the well-established practices of digital storytelling and journaling, two practices of which, as detailed in the 'Digital Storytelling' and 'Journaling' sections above, have been shown to have an range of benefits in the EFL classroom (see Abdolmanafi-Rokni & Qarajeh, 2014; Alsaleem, 2013; Arroba & Acosta, 2021; Madkour, 2016; Mohamed Salama Eissa, 2019; Rokni & Seifi, 2013; Sholah, 2019). Tapping on the positive outcomes of incorporating digital storytelling and that of 'journaling,' the "digital story journal" (DSJ) contains a series of digital stories centered around the creators' personal reflections, experiences, and ideas. The main distinction between a digital story and a digital story journal is that the latter, unlike a singular digital story, is a collection of short digital stories created sequentially by an individual person, which are kept together in one digital location (a website, flash drive, electronic folder, or DVD, for example). Notably, it is likely that a creator's collection of digital stories—their digital story journal—will inevitably reveal a larger theme or story when viewed as a series.

Creating a digital story journal will require both students and teachers to engage in the use of technology; it will be an integral part of the learning process for the DSJ project. Therefore, as another key element of this theoretical framework, the next section reviews the use of technology in the EFL classroom.

Technology in the Classroom

The use of technology in the EFL classroom can provide novel ways of learning in lieu of traditional methods, resulting in motivation increase on the part of learners (Deligianni-Georgak &

Pouroutidi, 2016). Through the use of technology, learners can become active collaborators in the learning process and their cognitive development can be nurtured (Moradi & Chen, 2019). However, teachers must be prepared to provide the necessary scaffolding in the use of digital technologies, where they must present and familiarize students with these tools before proceeding to use them for learning.

Despite the prevalence of digital media in the world, and having students being potentially quite competent in using these technologies in their everyday lives, some of them may not be familiar with the practice of using digital media for academic purposes (Oliva, 2017). Therefore, EFL teachers using technology-based projects in their classes should be prepared to provide the knowledge and skills required in how to use technology. This concept of digital literacy as related to SDT will be more carefully unfolded when presenting the framework of the proposal.

Learning new skills, using new tools, and also designing, and creating a long-term product in a language with limited proficiency, can cause a series of overwhelming challenges. Without high levels of motivation to sustain the effort and focus required, the task is unlikely to be successful. In the following section, a review on the most pertinent aspects of motivation for language learning is presented.

Motivation

Since learning a foreign language requires sustained effort during a long-term learning experience, motivation has been an area of interest and research in the field of EFL (Dörnyei & Ushioda, 2011). “To be motivated means to be “moved to do something” (Ryan & Deci, 2000, p. 54); moved to make specific choices, or moved “to engage in […] and persist in action” (Dörnyei & Ushioda, 2011, p. 3). Motivation “concerns the direction and magnitude of human behavior” (Dörnyei & Ushioda, 2011, p. 4), the choice involved in performing an action, how persistent one is in following through on the action, and how much effort goes into the action. Motivation is accountable for why a person decides to act, it is accountable for how long the person can sustain the action, and how much effort they expend in

pursuing the action or behavior (Dörnyei & Ushioda, 2011). Motivated students persist forward in their learning, learn more profoundly, and in general have better learning outcomes (Hulleman & Hulleman, 2018). Motivation leads students to achieve their language learning goals (Filgona et al., 2020). One of the most acclaimed proposals for understanding motivation in learning endeavors is the Self Determination Theory (SDT). Introduced by psychologists Richard Ryan and Edward Deci in 1985, SDT offers a useful framework for levering on student motivation in language learning. The most pertinent aspects of this theory are presented next.

Self Determination Theory

Self Determination Theory (SDT) is a theory of human behavior that is concerned with the social environments that promote or thwart human motivation and thriving (Ryan & Deci, 2017) and it can serve as a conceptual framework to inform the design of a digital story journal pedagogical proposal for use in the EFL classroom.

SDT states that people experience the highest quality, volitional motivation, when three basic and universal psychological needs are satisfied. In the context of SDT, needs are understood as "innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being" (Deci & Ryan, 2000, p. 229). The three basic human psychological needs according to SDT are autonomy, competence, and relatedness. Autonomy is the concept of having "a sense of initiative and ownership in one's actions" (Ryan & Deci, 2020, p 1). It should not be confused with independence, as you can be autonomously independent or autonomously interdependent (Ryan, 2016). Competence is a sense of mastery and self-confidence in one's abilities (Ryan, 2016; Ryan & Deci, 2020). Relatedness "concerns a sense of belonging and connection" (Ryan & Deci, 2020, p. 1); it concerns positive interpersonal interactions and relationships (Dincer & Yesilyurt, 2017).

The degree to which these three needs are supported or thwarted will determine an individuals' motivation. In a broader sense, the degree of satisfaction of these needs will determine the extent of a person's psychological growth, experience of wellness, and effective functioning. When these 3 needs are thwarted, then, "people will more likely evidence ill-being and non-optimal functioning" (Center for Self Determination Theory, n.d.).

According to SDT, motivation itself lies on a continuum, from non-self-determined motivation to self-determined motivation. The more that the three psychological needs—autonomy, competence, and relatedness— are satisfied—the more self-determined an individuals' motivation will be.

The types of motivation along the continuum from non-self-determined to self-determined are defined by how motivation is regulated in the individual. At the non-self-determined end of the motivation continuum (visualized as the left end of the continuum) is amotivation, which is a complete absence of motivation. On the very opposite end—the right end—of the continuum, is fully self-determined motivation, or intrinsic motivation. Intrinsically motivated individuals are engaged in something because it is inherently satisfying (Ryan, 2016).

In-between amotivation and intrinsic motivation is the broader category of extrinsic motivation. Within the broader category of extrinsic motivation there are four extrinsic motivation types—external, introjected, identified, and integrated motivation—that vary greatly in their source of motivation. The four distinct regulatory style types within the extrinsic motivation category are characterized according to the extent to which an individual internalizes and integrates the value of a requested behavior (Ryan & Deci, 2000). As defined by Ryan & Deci (2000), "internalization refers to people's 'taking in' a value or regulation, and integration refers to the further transformation of that regulation into their own so that, subsequently, it will emanate from their sense of self" (p. 71).

External regulation is fully influenced by compliance, external rewards, and external punishments (Ryan & Deci, 2000). For example, in a classroom setting, a student who does not wish to

participate in class activities but does so only to avoid some type of disciplinary punishment from a teacher, is experiencing externally regulated motivation.

Introjection, or introjected regulation, refers to the type of motivation that is still somewhat external but is regulated by self-control, internal punishments, and internal rewards such as the avoidance of feelings like anxiety and guilt (Ryan & Deci, 2000). For example, in a classroom setting, a student who dislikes reading aloud might experience introjected motivation when the teacher asks this student to read aloud, and the student only acts on the requested behavior (reading aloud) to avoid internal feelings of shame or guilt.

Identification, a more volitional form of extrinsic motivation, is an autonomous form of extrinsic motivation. The source of motivation for identification, also called identified regulation, is somewhat internal, the individual has begun to consciously value the requested behavior/task/etc. This conscious valuing is what regulates this motivation (Ryan & Deci, 2000). Identification happens when, for example, a student actively participates in class (asking questions, answering questions, taking notes, etc.) not because they truly enjoy participating—maybe they would prefer to stay quiet during class—but because they see themselves as a 'good student', and actively participating in class is part of their idea of being a 'good student'.

Finally, at the end of the extrinsic motivation category on the continuum is integration, or integrated regulation, in which the source of motivation is internal, and what regulates the motivation is congruence, awareness, and synthesizing of the behavior or requested task (Ryan & Deci, 2000). Integration is the most autonomous type of extrinsic motivation (Ryan & Deci, 2020). Elaborating on the example of class participation, an example of integrated motivation happening would be another student who is also actively participating in class but is doing so simply because it 'makes sense' to this student to participate; that is, the student has integrated this behavior (class participation) into their sense of self. Even though integration falls under extrinsic motivation, it shares with intrinsic motivation

its source of motivation: for both integrated regulation and intrinsic motivation the source of motivation is fully internal to the individual. This brings to the last category at the far right of the SDT continuum, which is self-determined intrinsic motivation.

When the source of motivation is purely internal, and the individual is acting out of genuine interest, inherent satisfaction, and enjoyment, we refer to it as intrinsic motivation or intrinsically regulated behavior (Ryan & Deci, 2000). When people are intrinsically motivated, they are moved to do something for the fun that comes from it, or to pursue a challenge, rather than being moved by external forces like pressures and prizes for doing so (Ryan & Deci, 2000). A student who is intrinsically motivated to participate in classroom activities is doing so because it brings this student genuine enjoyment and satisfaction.

Thus, when the three basic psychological needs—autonomy, competence, and relatedness are satisfied, individuals will be autonomously motivated. Students are more likely to learn when their motivation is autonomous—be it intrinsic motivation, or an internalized, volitional form of extrinsic motivation (identification and integration). Due to the learning benefits of fostering more integrated forms of motivation, exploring how to satisfy the three basic psychological needs in the classroom (relatedness, autonomy, and competence) seems to be a prolific line of exploration. This brings us to the topic of SDT in the field of education, specifically in the English as a Foreign Language classroom.

Self Determination Theory in EFL and Language Learning

Highlighting the importance of aiming to cultivate need-supportive environments in learning spaces, Ryan and Deci (2020) explain that within education, the application of SDT centers on basic psychological needs-satisfaction, not just in students, but also in teachers, maintaining that across diverse cultures, the presence of SDT's three basic psychological needs facilitate more autonomous types of motivation (Ryan & Deci, 2020).

Past research has shown that needs-supportive environments in EFL and language learning classrooms are correlated with positive outcomes including course participation, perceived competence in students, achievement in the course (Dincer et al., 2012), increased learner autonomy (Albarai, 2021), as well as more self-determined and engaged language learners (Noels et. al, 2019). Language learners whose SDT needs are supported will also be more empowered students (Davis & Bowles, 2018). A 2017 study by Dincer and Yesilyurt; which sought to uncover EFL university students' motivational orientations to speak in English, and how those orientations related to their autonomous motivation and the teacher's autonomy support; found that EFL university students' feelings of autonomy, particularly, were correlated with both students' intrinsic motivation and identified regulation to speak English. Furthermore, the researchers found that autonomy supportive teachers were positively correlated with student achievement, and that "a classroom context characterized by the autonomy-supportive motivational style of EFL teachers is closely related to EFL learners' more self-determined motivational orientation, self-regulation, and higher classroom engagement" (Dincer & Yesilyurt, 2017, p. 18).

However, it is inevitable that not all learning activities will always be intrinsically motivating for students. More often than not, students will be moved to carry out classroom activities employing motivational forces that land somewhere in the external motivation part of the continuum. This being the case, it is a much more practical goal to aim to foster volitional forms of extrinsic motivation—integration and identification—in the classroom as well, rather than exclusively aiming to foster intrinsic motivation.

Although needs-supportive teaching behaviors may come naturally to some teachers and within certain contexts, needs-supportive teaching can be cultivated and purposefully implemented in the classroom with the aim of increasing student motivation. Through specific SDT-informed strategies,

practices, and instructional behaviors, educators can cultivate needs-supportive environments (McEown & Oga-Baldwin, 2019; Muñoz-Restrepo et. al, 2020; Reeve, 2011).

Correspondingly, needs-supportive teaching in the language learning classroom just makes sense intuitively—successful teachers are those who make students feel welcome in the classroom, thus nurturing relatedness; they help students to be capable of using the new language, thus fostering competence; and finally, when students engage in the new language, this aligns with the students' sense of self, thus the teacher has helped to foster their autonomy (McEown & Baldwin, 2019).

In sum, these findings show that needs-supportive environments are likely to satisfy SDT's psychological needs and thus lead to greater autonomous motivation in learners. Noels et al. (2019) concluded in their research that students experiencing psychological needs satisfaction "are more self-determined and engaged in LL [language learning], and as a result, are likely to achieve academically, linguistically, psychologically, and socio-culturally" (p. 106).

It is these specific SDT needs-supportive motivational strategies, practices and instructional behaviors that will inform the pedagogical proposal presented in this research paper. The 'framework' section of this text will outline and specify what these strategies are and how they will be applied to the pedagogical proposal.

Goal & Objectives

The present theoretical exploration attempts to answer the following question:

- How can SDT principles inform the pedagogical design of a digital story journaling proposal to promote higher levels of motivation in the EFL classroom?

The objectives for the present theoretical exploration are to review the concept of a digital story journal for the EFL classroom; to present a theoretical framework that shows that a pedagogical proposal for the EFL classroom, centered around digital story journaling, can be designed to be SDT-needs supportive, and thus increase EFL learner motivation; to present the digital story journal (DSJ) pedagogical proposal, and to show that the nature of the proposed DSJ project—as a digital, multi-literacy promoting, storytelling project—can be—congruent to these organic elements of the project—characteristically SDT needs-supportive and thus promote learner motivation.

Methodology

The objectives were achieved via literature research in storytelling, digital storytelling, journaling, SDT in education, SDT in language learning, and SDT in EFL. Google Scholar (scholar.google.com) and the Education Resources Information Center (eric.ed.gov) were used to search for research studies, and a variety of educational websites were referenced. Aside from literature review, critical thinking, and the process of designing the pedagogical proposal have been part of the methodology.

An important part of the methodology has been to outline the process of creating a digital story and define how digital storytelling merges with ‘journaling’ to create a ‘digital story journal’ as outlined in the pedagogical proposal. In the ‘framework’ section, the digital storytelling process is detailed in full.

SDT as applied to education, language learning, and EFL have been examined. The major themes that reveal themselves in the literature have been identified and have informed the design of the DSJ pedagogical proposal. These major themes include: the importance of a needs-supportive teaching style to foster autonomous motivation, the benefits of an autonomy-supportive teaching style as opposed to a controlling teaching style, and the disadvantages of a needs-thwarting teaching style (Ryan & Deci, 2020). Research that outlines core elements of a need-supportive teaching style is also prevalent in the literature (Ryan & Deci, 2020).

To apply SDT principles to a pedagogical proposal, it has been essential to extract from the existing research the practices that have been shown to be SDT needs-supportive, that is, practices that have been shown to support autonomy, competence, and relatedness in educational settings, and more specifically in EFL settings. These practices will be comprehensively reviewed in the 'framework' section.

Framework for the Pedagogical Proposal

This section presents the framework for the DSJ pedagogical proposal. First, the process for creating a digital story, and accordingly, a digital story journal, are presented. Next, the unique characteristics of a digital story journal project are explained considering how these characteristics can promote SDT basic needs satisfaction. Finally, needs-supportive teaching strategies and practices, based on the scope of research that has been conducted, are outlined according to each basic need (autonomy, competence, and relatedness).

Creating a Digital Story

A digital story is a story created with the use of technology to create a multi-media piece compiled into an editing software, which can be viewed in a video format (Lambert, 2010; Reinders, 2019; Robin, 2016; & The Educational Uses of Digital Storytelling Website). Robin (2016) defines digital

storytelling as a merging of storytelling with a combination of digital elements, including text, images, recorded audio narration, music, and video. Using computer programs to create them, these elements are put together to complete a story, typically with a length of between 2 to 10 minutes (Robin, 2016).

Bernard Robin (2016) also outlines a 12-step process for educators to use in their classrooms to begin teaching digital storytelling. The process starts with step one being the choosing of a topic, followed by step two—conducting research on the topic. Step three is to write the first draft of the script, Step four is to receive feedback on the script, followed by step five which is to revise the script. Step six consists of finding and creating images to add to the digital story. Step seven is to make sure that your digital story is respectful of copyrights, followed by step eight which is to create a storyboard for your digital story. Next, step nine is to record the audio narration for your digital story. Optional is step ten—to add music into your digital story. Finally, is step eleven which is to create the digital story in the software that you choose. And lastly, step twelve is to publish your digital story online (Robin, 2016).

It is necessary to describe what a 'storyboard' is, as creating one is an important part of the process of creating a digital story. A storyboard is where their digital story is visually crafted (see Appendix B). It is a where one pairs the visual elements of their story with the script by planning out what happens sequentially in the story, and planning what imagery and audio elements will accompany each part of the story, and how these elements will interact with one another. This step shows the creator what visual materials and audio elements are required to create your final product. (Lambert, 2010).

There are 7 elements of a digital story, as developed by Story Center, formerly The Center for Digital Storytelling (Jakes Online, n.d.; University of Houston College of Education, n.d.). The seven elements are not steps but features which the creator should aim to have in their story. The 7 elements of a digital story are as follows:

1. Point of View: The theme behind the story, the author's perspective.

2. A Dramatic Question: A question to capture the viewers' attention; to be answered later in the story.
3. Emotional Content: Connect with the audience via incorporation of emotion and meaningful content into the story.
4. The Gift of Your Voice: Personalization of the story through the use of your unique voice.
5. The Power of the Soundtrack: Music or other audio elements to add another layer of depth to the story.
6. Economy: Efficiently illustrating the story in a meaningful way without overloading the audience with an excess of content. Using enough content to keep viewer attention but not going overboard.
7. Pacing: The rhythm of the story; sustaining interest through rhythm.

(Jakes Online, n.d.; University of Houston College of Education, n.d.; Moradi & Chen, 2019)

The following section explains the distinction between a digital story and a digital story journal and explains how students will implement the steps and elements of digital storytelling to create their digital story journals.

Creating a Digital Story Journal

The main distinction between a digital story and a digital story journal is that the latter, unlike a singular digital story, is a series of short digital stories created by one person, which are kept together in one digital location (a website, flash drive, electronic folder, or DVD). The stories in the journal are centered on the creators' personal reflections, experiences, and ideas.

In the present pedagogical proposal, each entry of the DSJ project will be prompted—that is, students will be given a broad idea to work with as a starting point for their stories. There will be three digital story journal prompts. The 12-step process to create digital stories (Robin, 2016) will be followed,

with the exception of step 12, online publishing, which will be optional. For step 12, students will have a choice between publishing their DSJ online and submitting this link to their teacher; or they may download their DSJ onto a flash drive, electronic folder, or DVD and submit this to their teacher. Students will be encouraged to include the 7 elements of a digital story (University of Houston College of Education, n.d.) in their stories.

The following section presents how the distinctive characteristics of a digital story journal can be linked to Self Determination Theory.

DSJ Characteristics as Related to SDT

The unique characteristics of the digital story journal make this project proposal characteristically SDT needs-supportive. Through digital story journals, students create and share their own stories with others and bring their own cultures, real-life experiences, perspectives, and ideas to the classroom which fosters relatedness (Davis & Bowles, 2018). The process of creating their stories through digital tools in the target language provides an optimal challenge, fostering competence (Niemiec & Ryan, 2009). Finally, digital story journaling provides many occasions for choice throughout the creative process, supporting autonomy (Alamer, 2021).

In addition to literacy in the English language, students will gain other types of literacy through the creation of the DSJ. While conducting online research and using a variety of technology, students will practice and gain visual literacy, digital literacy, and information literacy. Visual literacy is the aptitude to comprehend and create images as well as communicate through them (Robin, 2016). Digital literacy is the capability to both navigate and create technology-based content; and it includes finding information online and interacting and communicating with others as well as with computer programs (Robin, 2016; Windana, 2020). Digital literacy includes the ability to discern when and for what purposes technology should be used; and having awareness of the impacts, both negative and positive, that

technology has on our daily lives (Windana, 2020). Information literacy is the capability to locate information and evaluate that information. The use of these literacy skills in this project is relevant to SDT principles in that students who come to class with a good level of visual, digital, or information literacy will have these existing skills to use to support their English learning experience, which is likely to support competence, and moreover, bringing their real-life experiences (in this case, their experiences with these literacies) into the classroom will support relatedness (Davis & Bowles, 2018). For students who are just learning how to navigate the skills involved with proficiency in these literacies, the completion of the DSJ will help these students develop them.

The following table summarizes the ways in which DSJ characteristics are characteristically needs-supportive. In the left column are the three basic psychological needs: autonomy, competence, and relatedness. In the right column are the DSJ proposal characteristics that support each basic need.

Table 1

DSJ Characteristics as Related to SDT

SDT Basic Psychological Need	**DSJ Proposal Characteristic**
Autonomy	• Opportunities for choice throughout the creative process.
Competence	• Optimal challenge through use of digital tools in the target language. • Use of literacy skills that students will likely have experience with.
Relatedness	• Sharing real-life experiences in the classroom.

	• Bringing students' real-life experiences with a multitude of literacies (visual, digital, information) into the classroom.

SDT Needs-Supportive Strategies

This section outlines need-supportive teaching strategies. Specific pedagogical strategies to support each basic need (autonomy, competence, and relatedness) are detailed in separate sub-sections.

Autonomy Support

Much of the literature related to needs-supportive SDT practices in education and EFL focuses exclusively on autonomy-supportive teaching strategies and behaviors. Autonomy-supportive teaching is a cluster of instructional behaviors that communicate support and understanding to students (Jang et al., 2016). Autonomy-supportive teaching has been shown to aid in creating a positive classroom climate and satisfy feelings of autonomy in students. Moreover, autonomy-support principles can undoubtedly be used to inform activities, exercises, tasks, and projects. Extracted from the reviewed research are the following autonomy-supportive practices.

- Embrace an open, curious, student-focused attitude and use an understanding interpersonal tone when speaking with students; take the students' perspective, conduct formative assessments like 'exit slips' in order to understand the students' perspectives (Reeve & Cheon, 2021), and acknowledge students' negative feelings and resistance (Reeve, 2011).
- Use invitational language with students (Reeve & Cheon, 2021), expressing a sense of invitation and not coercion (Deci & Ryan, 2016).

- Display helpful, friendly behavior (Ahmadi-Azad et al., 2021), offer emotional support and security (R. Ryan, Stiller, & Lynch, 1994, as cited in McEown & Oga-Baldwin, 2019), listen to students carefully and listen to their ideas (Dincer et al. 2012; McEown & Oga-Baldwin, 2019).
- Give explanatory rationales for activities, tasks, projects, etc. (McEown & Oga-Baldwin, 2019; Niemiec & Ryan, 2009; Reeve & Cheon, 2021). Providing rationales for projects and activities will support their internalized motivation through autonomy (Reeve, 2011).
- Use informational language (Dincer et al. 2012), offer support and clues instead of outright answers (McEown & Oga-Baldwin, 2019), and be specific and clear when providing feedback (Deci & Ryan, 2016).
- Allow students to work at their own pace in class, show patience with them (Reeve & Jang, 2006, as cited in Jang et al. 2016), and let them do their work in a manner that suits them (McEown & Oga-Baldwin, 2019).
- Provide meaningful choices for language topics, create occasions for choice (Alamer, 2021; Dincer et al. 2012; Joe et al., 2017; Ryan & Deci, 2020), and give students a voice in activities (Niemiec & Ryan, 2009).
- Encourage students to follow their own interests (Davis & Bowles, 2018; Reeve & Cheon, 2021), integrate "learning tasks and activities that take learner needs, goals, and interests… into account" (Alrabai, 2021, p. 13), and present activities and topics that are personally relevant to students (Reeve & Cheon, 2021).
- Provide more chances for learners to talk to amongst themselves and to the entire class (McEown & Oga-Baldwin, 2019).
- Implement culturally responsive teaching (Reeve & Cheon, 2021)
- Present optimal challenges (Reeve, 2011) and provide students with opportunities for immersion in the target language (Davis, 2018).

- Provide structure and clear expectations (Ryan & Deci, 2020); provide clear instructions and guidelines to create structure (Deci & Ryan, 2016).
- Minimize “the salience of evaluative pressure and any sense of coercion in the classroom” (Niemiec & Ryan, 2009, p. 139); convey less of a focus on evaluative pressure (Davis & Bowles, 2018).

Competence Support

There are also plenty of strategies identified in the existing SDT research that support competence in the classroom. When students feel competent, they have a sense of mastery; and moreover, feelings of competence enable students to rise to a challenge in the academic setting (Munoz-Restrepo et al., 2020). The following competence-support strategies were identified in the reviewed literature.

- Create and provide structure (McEown & Baldwin, 2019), and provide structure in an informational way (Alamer, 2021).
- Present optimally challenging activities through which students can broaden their capabilities (Niemiec & Ryan, 2009).
- Provide models, demonstrations, and guides for students. Demonstrating a process through modeling promotes competence (Muñoz-Restrepo, 2020).
- Provide step-by-step instruction, necessary and sufficient instructional support, and scaffolding. (Joe et al., 2017; Muñoz-Restrepo, 2020)
- Provide students with descriptive, non-judgmental feedback that will help them improve their performance, rather than generalized feedback statements such as ‘good work’ (Muñoz-Restrepo, 2020).

- Give feedback that is focused on meaning over form, (Davis & Bowles, 2018) is positive yet constructive (Al-Amri, 2021), and is communicated in a non-controlling manner (Alamer, 2021).
- Downplay evaluation while giving feedback and instead put emphasis on providing information that helps learners to master the task (Niemiec & Ryan, 2009)

Relatedness Support

Finally, relatedness-support strategies have been identified. Students feel relatedness when they feel a sense of belonging and connectedness (Ryan & Deci, 2000, p. 64) to the others in the class group, including the teacher. The following relatedness-support strategies were identified in the reviewed literature.

- Provide opportunities for cooperative teamwork, which provide a positive emotional atmosphere and respond to students' need for relatedness (Dörnyei & Ushioda, 2011).
- Show enthusiasm for the subject (Munoz-Restrepo, 2020).
- Build personal connection with students by communicating openly with students, having a non-judgmental attitude, and showing interest in them (Muñoz-Restrepo, 2020)
- Convey "warmth, caring, and respect to students" (Niemiec & Ryan, 2009, p. 141), provide a safe environment (Davis, 2018), create group cohesion with fair and positive interactions (Joe et al. 2017).
- Implement culturally responsive pedagogy (Davis, 2018)
- Create opportunities for students to bring their real-world experiences and perspectives to the classroom (Davis & Bowles, 2018)
- Provide students with ample preparation for classroom activities to build confidence (Muñoz-Restrepo et al., 2020).

The following table summarizes the need-supportive strategies listed above. In the left column, are the 3 SDT basic needs. In the right column are the need-supportive teaching strategies to support each basic need.

Table 2

SDT Basic Needs and Corresponding Need Supportive Teaching Strategies

SDT Basic Need	**Need-Supportive Strategy within in DSJ proposal**
Autonomy	• Maintaining a student-focused attitude and taking the students' perspectives • Presenting project topics that are personally relevant to students • Conducting formative assessments • Using invitational language • Displaying friendly behavior • Listening to students' ideas • Providing explanatory rationales • Using informational language when giving feedback • Allowing students to work at their own pace and in ways that suit them • Providing choices • Giving students a voice in activities • Encouraging students to follow their own interests • Providing time for learners to talk with each other • Providing culturally responsive activities and projects • Giving students challenges • Immersion in English language • Providing structure and guidelines • De-emphasizing evaluative pressure
Competence	• Providing informational structure • Giving students challenges • Provide models and demonstrations • Provide step-by-step instructions and support • Provide descriptive, informational, and constructive feedback • Communicate feedback in a non-controlling way • Focus on meaning over form • Downplay evaluation during feedback
Relatedness	• Providing opportunities for collaboration • Showing enthusiasm for the topic during teaching • Building personal connection with students

	• Communicating openly with students • Conveying warmth to students and creating a safe environment for them • Creating group cohesion • Implementing culturally responsive pedagogy • Create occasions for students to bring their real-world experiences to the classroom • Providing students with ample preparation for activities

Based on the conceptual framework outlined above, the following section presents the resulting DSJ Proposal.

Digital Story Journal Proposal

This section presents digital story journal pedagogical proposal. First, is the DSJ project overview, which includes a review of software options for creating the DSJ. Next, the activity and learning outcomes for each part of DSJ project and the details of each DSJ prompt are presented. Following this, the detailed unit procedure guide is presented. The procedure guide provides step-by-step instructions on how to implement each session of the project. The unit procedure includes key explanations of how specific elements (activities, tasks, exercises, teaching tips) of the procedure seek to foster SDT's 3 basic psychological needs. The aforementioned 'teaching tips' are recommendations for teaching the unit through a needs-supportive instructional approach. Finally, suggestions for SDT needs-supportive assessment and feedback strategies are given.

DSJ Project Overview

Level: Upper Intermediate to Advanced EFL learners; B2 to C1 levels.

Context: This project proposal is intended for adult English language learners and is intended for use at either an English as a Foreign Language (EFL) course at a language school or for a post-secondary EFL class. The proposal could be implemented for EFL classes in many different settings and countries and is

meant to be adaptable in this way. It could certainly be adapted for use in an English as a Second Language (ESL) class as well.

Time: The unit has been designed to be implemented over 12 weeks; however, it can be tailored to meet the needs of the educator. There is one 50-minute introductory session dedicated solely to introducing the digital story journal (DSJ) project and the genre of digital storytelling in general. Following the intro session there are three digital story journal prompts to be completed, with each one requiring *eight 50-minute sessions over about 4 weeks to be completed*. However, the teacher can adapt the plan to their own schedule to extend or shorten the total number of weeks necessary to complete the project. Regardless, a *total of approximately 21 class hours* is needed, and students need some time outside of class to complete homework. The project can be incorporated into an existing syllabus, as sessions dedicated to the project do not need to be consecutive.

Materials:

- Internet connection.
- Computers or tablets (computer lab or students bring their own devices)
- USB flash drives – each student needs to keep their own flash drive. Students will use this throughout the unit to keep all their files in one place, and they may submit their project on this flash drive.
- Digital cameras or smartphones.
- Pens, pencils, and erasers.
- Copies of the 'What is a Digital Story Journal?' Handout (see Appendix A)
- Copies of a sample storyboard (for an example, see Appendix B)
- Copies of a storyboard template (for an example, see Appendix C)
- Copies of Journal Prompts 1, 2, & 3.

- Scanner (optional, but very helpful).
- Art-making materials (optional).
- Physical notebook dedicated to this specific project. This notebook will be for brainstorming, writing, and for in-class activities (optional).

Software Options to create a Digital Story Journal

There are a variety of software, websites, and app-based programs to create digital stories. Suggested web-based tools include WeVideo, Prezi, and VoiceThread. Suggested software tools include PowerPoint, Apple iMovie, and Windows Photo Story. If a computer program can incorporate text, images, and audio; and can be exported as a video file, then it can be used to make a digital story.

Intro Session: Introduction to the Digital Story Journal Project

Time: One 50-minute class session

Learning Outcomes:

By the end of this project, the students will be able to:

- understand what digital storytelling is and what a digital story journal is
- identify elements of a digital story and a digital story journal
- understand the skills that they will employ to create the digital story journaling project (research; reading, writing, and speaking in English; creativity; computer skills; etc.)

Digital Story Journal Project #1: A story about a dish or recipe

Time: Eight 50-minute class sessions over 2-3 weeks, accounting for the time students will work on their project at home.

Activity Outcomes:

By the end of this project, the students will have:

- created a digital story
- shared a personal story about a dish/recipe

Learning Outcomes:

By the end of this project, students will be able to:

- write and narrate a script for their digital story in the target language (English)
- successfully manage a variety of digital tools to create a digital story

Additional Materials:

- Copies of the vocabulary list handout

DSJ Prompt # 1:

Create a digital story journal entry about a dish or recipe (one that comes from your family, your culture, one you invented, or one you discovered) and tells a "story" about the dish from ***your*** point of view. Some examples you may use to guide you are listed below:

- When was the first time you tasted your chosen dish?
- Tell a story about the person who introduced you to this dish.
- How did you discover this dish? (e.g., did you create this dish by accident, or did you plan to create a new dish/recipe?)
- Where can you buy the ingredients for the recipe—are the ingredients difficult to find? (What part or parts of the world do the ingredients come from?)

Note: The main emphasis of this prompt is not to instruct or create a 'how-to' tutorial on making the dish (although you may decide to include this). The aim, however, is to tell a ***story*** about the dish from a personal viewpoint. Explicitly showing how to make the recipe may very well be part of your story, or it might not be. However, it is not a requirement.

Digital Story Journal Project # 2: Identity

Time: Eight 50-minute class sessions over 2-3 weeks, accounting for the time students will work on their project at home.

Activity Outcomes:

By the end of this project, the students will have:

- created a digital story
- shared a story about personal identity

Learning Outcomes:

By the end of this project, students will be able to:

- write and narrate a script for their digital story in the target language (English)
- successfully manage a variety of digital tools to create a digital story

DSJ Prompt # 2:

Tell a story about some aspect of your identity. It could be a story about your favorite hobby, your family history, your home, or it could be about an event in your life that changed you forever. It could be a story about how a certain color came to be your favorite color, or about something like a scar or tattoo—how did you get the scar/tattoo? You could tell the story behind the way you wear your hair,

or why you like to dress the way you do. This prompt is open to interpretation, but the story should tell your audience about some aspect of your identity.

Digital Story Journal Project # 3: "Op-Ed"

Time: Eight 50-minute class sessions over 2-3 weeks, accounting for the time that students will work on their project at home.

Activity Outcomes:

By the end of this project, the students will have:

- created a digital story
- learned about "opinion editorials"
- shared a personal story in the style of an "op-ed"

Learning Outcomes:

By the end of this project, students will be able to:

- write and narrate a script for their digital story in the target language (English)
- successfully manage a variety of digital tools to create a digital story

Additional Materials:

- Printouts of an op-ed, teacher should find one appropriate for their class (optional).

DSJ Prompt #3:

We all have opinions about current events, happenings in our lives, and even opinions about occurrences in fictional worlds! When someone writes an article for a publication about a particular topic or issue from a personal point of view, in other words, expressing their opinion about the issue,

this is called an “opinion editorial.” We will learn about opinion editorials and then you will write your own and turn it into a digital story.

This is your chance to create a story about almost anything that you have an opinion about and turn it into a digital story.

Research a topic, issue, or current event that you would like to create a digital story “op-ed” about. Alternatively, you could write an op-ed about an event from the past. You also have the option to create an op-ed about a personal or daily-life matter. You could also create a fictional op-ed, which could be from your own imagination or from a fictional book or movie (thus the op-ed becomes a fan-fiction piece). You could even create an op-ed from “the future” (for example, writing as if it is the year 2100 and commenting on a current event of the time).

Some examples of non-conventional op-ed ideas which you may use as a starting point are outlined below:

- “Why I think class should never start before 10 am.” (Daily life/personal)
- “Saving the earth: why we should encourage our families to turn off the lights when they leave a room.” (Daily life)

Procedure Guide

This section presents the procedure guide for the proposal. First the introductory session is outlined, followed by the 8-session procedure guide for DSJ projects 1-3, which will be repeated 3 times. Every step of each class session is presented alongside the basic psychological needs that are satisfied through each step.

The Procedure Guide is presented in a table format, with the “Step” column presenting the activity, exercise, task, or teaching tip; and the “Link to SDT principles” column presenting the basic

psychological need or needs that are satisfied through implementation of the step. However, it is important to note that each step might satisfy more needs than are highlighted. For the sake of this analysis, predominantly only the most salient need is highlighted for each step, with the exception of some steps that highlight two of the basic needs.

Introductory Session Procedure Guide

Step	SDT Basic Psychological Need

I. Warm-up: Speaking in pairs (5-7 minutes)
• Write a series of questions and keywords on the board for discussion. Some suggestions are listed below:
  ○ Keywords: Stories, storytelling, journaling, digital storytelling.
  ○ What does "storytelling" mean to you?
  ○ What are some stories that you are familiar with?
  ○ Have you ever kept a journal? What is journaling?
  ○ Are you familiar with digital storytelling?
• Put students into pairs and ask them to discuss these themes and questions.
• Go around the room, talking with each pair of students.
	Relatedness: Speaking in pairs to start can ease students' anxieties related to speaking. Giving students the time to first speak in pairs or small groups, followed by a whole-group discussion, provides a positive classroom atmosphere that is welcoming and safe, fostering relatedness (Davis, 2018)

II. Group Discussion (5-7 minutes) • Re-group as a whole class and ask each pair to share one answer to one of the questions or to define one keyword. • Conclude by telling them that the upcoming project for the semester (or course, etc.) is a digital storytelling project.	Competence: Through group discussions the teacher can create group cohesion and positive interactions, supporting competence (Joe et al. 2017).

III. Viewing Digital Stories (15 minutes) • Tell students that now the class will watch a few digital stories. • The teacher should choose 2 or 3 short digital stories before class, which they deem most appropriate for their students. • Some great examples to choose from are available at the following websites: www.storycenter.org/stories; www.digitalstorytelling.coe.uh.edu/example_stories.cfm	Competence and Autonomy: Viewing digital stories not only provides models for students, supporting competence (Muñoz-Restrepo, 2020), but also sets clear expectations for students about what they are setting out to create, supporting autonomy (Ryan & Deci, 2020).
IV. Introducing the Project & Reviewing the 'What is a Digital Story Journal?' Handout (15 minutes) • After watching, give each student their own copy of the 'What is a Digital Story Journal?' handout. This handout is provided (see Appendix A), however teachers should adapt it to suit their classes. • Tell students they will be creating their own 3-entry digital story journal. • Read and review the handout with students.	Competence: This handout is an important resource for students that presents structured information about the project, which supports competence. (McEown & Baldwin, 2019; Muñoz-Restrepo, 2020)

V. Questions, comments, concerns (10 minutes) • Invite students to ask questions and offer their comments about the project.	Autonomy: Setting aside time for questions and comments is a way to offer a meaningful rationale for why the project is worth participating in. Providing rationales for projects and activities will support their internalized motivation through autonomy (Reeve, 2011). Inviting students to express concerns gives the teacher the student's perspective, supporting autonomy (Reeve & Cheon, 2021) and giving them a chance to adjust to student needs. Furthermore, acknowledgement of resistance and negative feelings in the classroom is an autonomy-supportive instructional behavior (Reeve, 2011)

- Following the introduction session, each of the remaining 3 parts of the unit (each digital story project) follow the same basic structure. Each DSJ project takes 8 sessions to complete, and there are 3 projects in the journal, coming to a total of 24 sessions (not including the introductory session).
- Thus, the entire unit procedure, aside from the introductory session, is presented below in 8 sessions, to be repeated 3 times. However, in Sessions 1 & 2 there are different steps corresponding to each project.
- The instances in which the steps differ are noted by the project number in parentheses, e.g., "Warm-Up: (Project # 1)".

8- Session Procedure Guide for Projects 1-3

Step	**Link to SDT principles**
Session 1	
I. Warm-up: Pair work - <u>Project # 1</u> **(5 minutes)** • Pair work: Tell students that they will be put in pairs for a few minutes to discuss food and the meal that they ate most recently. Pair students. • Walk around the room to join in on students' conversations. • Have some conversation-starter questions written on the blackboard to guide the students' discussions. Below are some examples, but feel free to write any relevant "conversation starters." 1. What was the last meal you ate? What did you eat for breakfast today/yesterday? 2. Did you eat at home or at a restaurant? 3. Did you cook the meal yourself, and if not, who cooked it?	<u>Relatedness</u>: This activity allows students to practice speaking skills without the pressure of speaking in front of the whole class. Putting students into pairs may take some pressure off them and allow them to feel more comfortable speaking, especially at the beginning of the course, when students might not know each other. This pair activity will help create a cooperative classroom climate, fostering relatedness (Dörnyei & Ushioda, 2011).
I. Warm-up: Group Discussion - <u>Project # 2</u> **(5 minutes)** • Group Discussion: Write the word "identity" on the blackboard. Ask students what their understanding	<u>Autonomy</u>: Incorporating topics that are personally relevant to students and encouraging them to follow their own interests are ways to support

of this word is. Provide a few definitions/interpretations of "identity." Allow students to share their perspectives on what "identity" means. • Another option for discussion is to write the word "identity" on the blackboard and create a word map with students around this word.	autonomy (Davis & Bowles, 2018; Reeve & Cheon, 2021). Relatedness: Group discussion will help create a cooperative classroom climate, fostering relatedness (Dörnyei & Ushioda, 2011).
I. Warm-Up: Group Discussion - <u>Project # 3</u> (5 minutes) • Group Discussion: Write the words "opinion" and "editorial," and the phrase "opinion editorial" on the board. Ask students what these words and phrases mean. • Make sure to clear up any doubts or inaccurate definitions during the discussion, while maintaining an understanding and interpersonal tone with students.	<u>Autonomy</u>: Embrace an open, curious, student-focused attitude and use an understanding interpersonal tone when speaking with students to support autonomy (Reeve & Cheon, 2021) during this whole-class activity.
TIP: From the start of the project/unit, build personal connections with students by establishing open and non-judgmental communication with students, having interest in them, showing respect towards them, and conveying a warm, caring demeanor.	<u>Relatedness</u>: Building personal connection with students through the suggested instructional behaviors supports students' need for relatedness (Muñoz-Restrepo, 2020; Niemiec & Ryan, 2009).

II. Introduction of the Topic (5-10 minutes) ***(Step one of creating a digital story)*** • Give students the handouts of the digital story journal prompt. Let students read it and ask any questions that they may have. • All three of the journal prompts leave ample room for interpretation and choice. Make sure students know that they have a great deal of creative control, and that you are there to help them brainstorm. Simultaneously, make sure students know that they may use one of the examples within each prompt.	Relatedness: Each journal prompt gives students the opportunity to bring their real-world experiences into the classroom, which can promote relatedness (Davis & Bowles, 2018).
III. Read a sample story script: Project # 1 (10 minutes) • A sample digital story script that corresponds with the journal prompt for Project # 1 has been provided within the example storyboard (see Appendix B). Students will read this as a model story script. Alternatively, the teacher may choose to write a new story/script and use that instead.	Competence: Reading a sample provides students with a model, supporting competence (Muñoz-Restrepo, 2020).
III. Writing & Speaking Exercise - Making a list: Project # 2 (10 minutes)	Autonomy: Increasing opportunities for student speaking activities with each

• Ask students to open their notebooks and have a pen ready. Tell students that in the next 3 minutes, they should list as many words or phrases as possible that pertain to their identity. Set a timer for 3 minutes and tell students to begin. Give them a 30-second notice before the time is up. • Put students in pairs or small groups of 3 or 4. Tell students to read a few of the words on their list and give short explanations for why they wrote some of them.	other supports autonomy (McEown & Oga-Baldwin, 2019).
III. Reading an Opinion Editorial: (Project # 3) (15 minutes) • Option 1: Choose **one** opinion editorial for the entire class to read. Print out enough copies for everyone. Ask students to read the article independently, or in pairs. • Option 2: Use this time to get students on the computers and have students search for and choose **one** opinion editorial to begin reading. They will finish reading the op-ed for homework.	Autonomy: Here are presented two options for the teacher to choose from, based on what they deem best for them. Presenting choice for teachers in this unit functions to support autonomy in teachers who use this pedagogical proposal.
IV. Group or Pairs "brainstorming" (5-10 minutes)	Relatedness: Providing opportunities for cooperative teamwork responds to

• Put (or keep) students in pairs or small groups to discuss ideas they have for this digital story.	students' need for relatedness (Dörnyei & Ushioda, 2011).
V. Watch a digital story to serve as a model (5-10 minutes) • Now that students understand the nature of the project to come, the class will watch a model digital story provided by the teacher. Ideally, the teacher should create their own original digital story based on one of the DSJ entry prompts provided. Alternatively, the teacher could source an appropriate digital story from the web. • Allow time for students to ask questions or make any comments about the digital story.	Autonomy: Having a model for students sets a clear expectation of the outcome that is expected of the project, thus providing students with structure. This type of structure promotes autonomy, as structure is not synonymous with control. (Ryan & Deci, 2020).
TIP: It may be beneficial for students if the teacher creates an original, personalized digital story to share with the class, as sharing a story of their own with the class will show students that the teacher wants to connect with students interpersonally.	Relatedness: By sharing their own personal digital story, the teacher will show their own enthusiasm for the project which is likely to foster a sense of relatedness in the classroom (Munoz-Restrepo, 2020).
VI. Explain homework & explain the next step (5 minutes) • ***Homework: choose a topic and write 1-2 sentences describing your topic***	Autonomy: Telling students what is next in the lesson functions to give them a meaningful rationale behind the homework task (and why it's

• Explain that students should decide on a topic for the next project session (if sessions dedicated to the digital journal project are not consecutive, let students know what date they should have their topic ready by). Explain that this next project session will be devoted to research and writing of the script. • Explain that for homework, students will write one or two sentences in their notebooks that explain/describe the topic for their digital story. They should bring this to the next session to share with their peers and the teacher. • ***<u>Additional Homework Project 3*</u>: finish reading opinion editorials.***	important to complete), which supports student autonomy (Reeve & Cheon, 2021).
Session 2	
I. Warm-Up: Group Discussion (5-10 minutes) • Whole class group discussion: ask students to share their topic for their digital stories with the group. • Check to see that homework was completed and that everyone has a topic to go forward with that is adheres to the prompt and is appropriate for the classroom setting.	<u>Autonomy</u>: Whole group discussion can foster autonomy (McEown & Oga-Baldwin, 2019).

TIP: When initiating the group discussion, use 'invitational language' to request that students share their topics. Some suggestions of phrasing include: "you're invited to share your topic with the class," "you may share your topic," or "I invite you to share your topic, it could be helpful to get feedback." Try not to use pressuring language such as "you must share your prompt" or "you have to participate." Furthermore, when students do share, genuinely listen to their ideas for their digital story projects.	Autonomy: When teachers use invitational language rather than pressuring language, they support student autonomy and "encourage student initiative" (Reeve & Cheon, 2021, p. 58). Genuinely listening to students' ideas fosters autonomy (Dincer et al. 2012; McEown & Oga-Baldwin, 2019).
TIP: Seek to not be strict with regards to how a student interprets the prompts. After all, the prompts are designed to give students 'choice' in regard to what type of story they wish to tell. So, within reason, allow students move forward with their chosen topic. If a students' topic simply cannot be approved, be helpful by steering them in a direction that is more relevant to the prompt.	Autonomy: Helpful, friendly, and understanding behaviors shown by the teacher towards students have been shown to be autonomy-supportive, whereas strictness has been shown to be a controlling behavior (Ahmadi-Azad et al., 2021).
II. Online Research: Project # 1 (25 minutes) ***(Step two of creating a digital story)*** • The direction a student decides to take with this project will determine what kind and how much research they need to do. For example, if a students' story is about how their mother cooks a family recipe, there might be little to no online research involved… however, they may want to interview their mother about the recipe. In this	Autonomy: Encourage students to conduct their online research in the target language, English. Searching the web and researching in English gives students a real-world experience in the target language and provides a (digital) language immersion experience in English. Providing students with

case, a student can use this time to write the interview questions, and plan out how the interview will be carried out outside of class. However, if a student is, for example, doing a story about the larger cultural history of a family recipe, they will likely require doing online research to gather information about the history of the recipe.	immersion in the target language is suggested by Davis (2018) as a recommendation for supporting student autonomy.
II. Online Research: <u>Project # 2</u> (25 minutes) ***(Step two of creating a digital story)*** • For Project 2, again, the way in which the research portion of class develops will largely depend on the direction that individual students wish to go with their "identity" story. If they are creating a story about something completely personal, let them use this time to begin writing an outline for their first draft. If they are doing a story that could fit into a larger narrative, and they want to include something about that, then they should use this time for online research. (An example of this might be if a student decides to create a story about their experience of immigrating to a new country, they might decide to research statistics about immigration to contextualize their personal story.)	<u>Autonomy</u>: Letting students do their work in a manner that suits them is supportive of autonomy (McEown & Oga-Baldwin, 2019).
II. Online Research: <u>Project # 3</u> (25 minutes)	<u>Autonomy and Competence</u>: As this is the third journal prompt, it has been

• Students use this time to research topics or begin their outline. Depending on the chosen topic for their "op-ed," they might need to do research to gather accurate information. If their op-ed is a fan-fiction op-ed, or about something in their daily life, this may require little to no research. Work with each student to make sure they are making progress and that they have all the information they need to move forward with the project.	designed to be somewhat more challenging with regards to subject matter. Optimally challenging activities support student autonomy (Reeve, 2011) and competence by giving students the chance to broaden their capabilities (Niemiec & Ryan, 2009).
TIP: Be involved in student work! Use this block of time (IV.) to give students individual support (as needed) as they do their research. Show students that you care about their project and about them as individuals. Make it clear that you are available as a resource for students and allow them to ask you questions.	"Students who perceive that their teachers are willing to spend time with them, form caring bonds, and offer emotional support and security ultimately display more autonomous motivation and engagement in formal learning environments" (R. Ryan, Stiller, & Lynch, 1994, as cited in McEown & Oga-Baldwin, 2019, p. 3).
III. Begin writing the first draft (10-15 minutes) ***(Step three of creating a digital story)*** • After researching the topic, students will use any remaining class time to begin writing their script. Depending on available resources, this can be done in their notebooks or on computers.	Competence: Providing in-class work time to begin their projects lets students begin their projects in a structured environment. Structure supports competence (McEown & Baldwin, 2019)

TIP: Allow students to work in their own time and show patience with their process, especially if they are working slowly. If they need more time for research and thus are not ready to begin writing the script, let them continue researching. Simply remind them that they must write their script at home.	Autonomy: An autonomy-supportive teacher-provided behavior which has been shown to communicate an interpersonal message of support towards students is allowing students to go at their own pace in class and show patience with them (Reeve & Jang, 2006, as cited in Jang et al. 2016).
IV. Explain homework (5 minutes) • ***Homework: Finish first drafts of script*** • Students should finish their first drafts of the script. Length for the script is no less than 200 words, and no more than 600. Students should bring a hard copy of their scripts to class, either written in their notebook or typed and printed. Explain that they will be sharing their script in pairs during the next class session.	Autonomy: Providing students with a meaningful rationale for why they should finish the first draft for homework (to share in pairs during next session) is an autonomy-supportive teaching behavior (Reeve & Cheon, 2021; Niemiec & Ryan, 2009; McEown & Oga-Baldwin, 2019)
Session 3	
I. Warm-up: Independent work time (2-3 minutes) • Tell students that they have a few minutes to work independently to make any last-minute changes to their script. Tell them that in about 3 minutes they will be getting into pairs to share their script.	Competence: Time for editing their own work will give students an optimal challenge, fostering competence (Niemiec & Ryan, 2009).

II. Feedback: peer-to-peer (15-20 minutes) ***(Step four of creating a digital story)*** • Put students into pairs and explain that each student will be reading their script to their partner, and their partner will be providing feedback about their partner's story and narration. • Students may need some structure in order to provide feedback to their peers. In this case, the teacher could, for example, ask students to write on a piece of paper 2 things they enjoyed about their partner's story, 2 questions about it, and 2 critiques. • Students should repeat the feedback process with a second partner if time allows.	Autonomy: Here, peer to peer feedback is chosen before teacher evaluation. It is suggested that students are given the chance to evaluate each other and then make changes based on their peers' feedback before submitting a final draft to the teacher. This supports student autonomy by minimizing "the salience of evaluative pressure and any sense of coercion in the classroom" (Niemiec & Ryan, 2009, p. 139).
III. Revise the Script (25 minutes) ***(Step five of creating a digital story)*** • Students will use this time to revise and finalize their scripts, taking their peers' feedback into consideration. • Students should turn in a final draft to the teacher at the end of class, either submitting electronically or by turning in a hand-written version in their notebooks.	Autonomy: Providing in-class time to revise their scripts will reinforce the idea that the earlier feedback activity was not a high-pressure assessment, but rather part of a process in which they are an active collaborator with the teacher and their peers. Less focus on high stakes evaluation of their scripts supports autonomy (Davis & Bowles, 2018).

	Relatedness: The collaborative process of writing and revising is a teamwork activity and thus is likely to engender feelings of relatedness among students. (Dörnyei & Ushioda, 2011)
IV. Explain homework (5 minutes) • ***Homework: Prepare for the next session which will focus on images. Bring images and materials to class.*** • If students want to take their own original photographs or bring their own pictures or any other visual elements from home, they must bring them to the next session. • Remind students that photos are not a mandatory element to include. Students can use different visual elements such as drawings, collages, or magazine clippings. They can bring materials to draw or craft with during class. • If students are only going to use images from the internet, they may begin searching at home but there will be ample time in the next class session.	Competence: Students who are visual learners will benefit from having the opportunity to activate this learning style by collecting visual materials. Catering to a variety of learning styles throughout a lesson will likely promote a sense of competence in students who excel in those corresponding learning styles.

Remind them of copyrights issues, which will also be discussed in the next class.	
Session 4	
I. Images (20 minutes) ***(Step six of creating a digital story)*** • This part of the class is dedicated to image sourcing and creating. Students may use this time to continue their search for images online, take pictures, draw, or organize their images/materials. • Dedicate some time to inform/remind students about **Copyrights *(step seven of creating a digital story)***, and that they should only use royalty-free and public domain images for their stories. Copyrights vary around the world, so the teacher should inform students of copyrights information that is specific to the country in which they are teaching. • Remind students to keep all photos in a folder in their flash drive, and to name the folder for easy access. • If students have brought their own images to class, now is the time to help students scan the images	Autonomy: Students have a variety of choices when it comes to how they want to source or create their images for the project. Creating occasions for choice promotes autonomy (Alamer, 2021; Dincer et al. 2012; Joe et al., 2017; Ryan & Deci, 2020).

onto the computer and create a folder for the images! • At the end of these 25 minutes, students should have their images chosen or at least have a good idea of what images they plan to use.	
II. Storyboarding: Teacher-led tutorial (15 minutes) ***(Step eight of creating a digital story)*** • Storyboarding is the process of planning out how to pair the visual elements with the audio elements for the digital story. • Clearly explain what storyboarding is and allow students to ask questions. • Refer students to the example storyboard handout (see Appendix B) which features a completed storyboard which corresponds to the first digital story journal prompt. • On the blackboard or your projector, thoroughly review the process of storyboarding, as a collaborative activity. Review how to use the storyboarding template provided (see Appendix C). • Emphasize that the storyboard is a tool for planning, it is not necessary to have a polished final product.	Competence: The tutorial functions as a modeling activity, in which the students are presented with a guide. Demonstrating the process through modeling promotes competence (Muñoz-Restrepo, 2020).

Instead, the storyboard serves as a 'map' for how to put together the digital story once we begin putting all the pieces together on the computer. • Use this time to explain the homework: storyboards should be completed for homework, in time for the next class session. • The time needed for this step will decrease with every mini-project, and more time can be allotted to in-class time for storyboarding.	
TIP: Students may feel tempted to skip this step, as it may seem unnecessary and tedious, however storyboarding provides a roadmap to follow during the final step of putting together the digital story in the software program. Provide students with this information to communicate to them a meaningful rationale as to why this step is important.	Autonomy: Providing students with an explanatory rationale as to why an activity is helpful to their learning process is a valuable autonomy-supportive instructional behavior that communicates the activities' value (Reeve, 2011).
III. Storyboarding: Independent Work (10 minutes) • Students can either use the storyboard template provided (see Appendix C), they may make their own digitally, or they may sketch out their own storyboard in their notebook.	Competence: Providing some amount of in-class independent work time before students finish the task at home ensures that students have started the task and they will feel more capable of finishing the task for homework (as this will be asked of them). Thus, this in-

	class work time can help promote student competence.
IV. Explain Homework (5 minutes) • ***<u>Homework</u>: finish storyboards and start to practice narration or voice portion of the story***	<u>Autonomy</u>: Providing rationales supports autonomy (Reeve, 2011).
Session 5	
I. Warm-Up: peer-to-peer feedback (10 minutes) • Put students into pairs or small groups and ask them to trade storyboards and provide each other with feedback. They can use this time to make any edits. • Make sure all students have completed their storyboards. If they haven't, they should do so before proceeding with the next activity.	<u>Relatedness</u>: Providing opportunities for cooperative teamwork responds to students' need for relatedness (Dörnyei & Ushioda, 2011). Autonomy: Through peer-to-peer feedback, there is less focus on evaluative pressure, which fosters autonomy (Davis & Bowles, 2018)
II. Practicing/recording the narration or voice portion of the story (30 minutes) ***(Step nine of creating a digital story)*** • Students' storyboards should be finalized before proceeding with recording, as it gives them a guide to how they will deliver their narration. • Students can choose to record at home if they prefer, or they may do so during class.	<u>Competence</u>: Practicing the narration and having multiple chances to record the narration may ease student's worries and self-consciousness about their speaking capabilities, which even intermediate and advanced students may have. Having established a warm, inclusive classroom atmosphere creates the setting for students to feel

• Students who prefer to record at home can use this time to practice narrating their script with a partner or a small group. • Recording devices options: We Video has a recording capability built into the software, this is what is recommended for the project. Otherwise, students could use a voice recording app on their phone and save the file to add into their digital story.	comfortable narrating their scripts in front of each other. This time to be able to practice and record may help foster student feelings of competence.
TIP: As speaking may cause anxiety for some students, these students may be resistant to participating in recording or practicing their scripts. While it is not obligatory that they practice or record during class (they may complete this for homework), encourage them to take advantage of this class time to do so by using invitational language rather than coercive language.	Autonomy: When teachers "convey a sense of invitation rather than coercion, they will be more effective in promoting autonomy, engagement, learning, and wellness" (Deci & Ryan, 2016, p. 21).
III. Add music (optional!) (10 minutes) ***(Step ten of creating a digital story)*** • Tell students that there are only ten more minutes of class left, and that they can use these last ten minutes to finish recordings/practicing, or to begin looking for copyright-free music to add to their digital story.	Competence: Some students may enjoy this more than others as they may have a personal interest in music. For those who do have an interest and skills in this domain, being able to combine a talent of theirs with their English project will cultivate confidence and thus, feelings of mastery and competence.

• Remind students they can record their own original, folk songs, or public domain songs. Students who enjoy singing or who play a musical instrument might want to do this. • **Remind students this step is optional.**	
IV. Explain Homework (5 minutes) • ***Homework: finish recording scripts; source copyright-free music or record your own music (optional); bring all files to next class session***	Autonomy: Providing rationales supports autonomy (Reeve, 2011).
Session 6	
I. Creating the digital story in software or web-based program: Teacher-led tutorial (20 minutes) ***(Step eleven of creating a digital story)*** • All the prior steps and class sessions have been leading to this point! All students need access to a computer or device. • Students should have all their photos, audio files, and music files on their flash drives. • The teacher should be very proficient in the software or web-based editing program used for the project so that students can ask them questions. WeVideo is ideal because the website has built-in tutorials that students can refer to.	Competence: The teacher-led tutorial will equip students with the skills necessary to carry out the task on their own. Having an in-person tutorial and a teacher who is proficient in the software or web program will provide students with sufficient support to help them succeed in the project, which fosters competence (Muñoz-Restrepo, 2020).

II. Creating the digital story: In-class work time (25 minutes) • Whatever software the teacher chooses to do the project with, and consequently the tutorial for, they should make sure to be familiar with how to use it so that they can teach students effectively and help them throughout the process. • Give students a 10-minute warning before the end of class time so that they can save their work and stay organized.	Relatedness: The tasks and activities leading up to the recording of narration will help ensure that students are prepared to complete this step. Up until this point, students have written and edited their scripts, created their storyboards so that they know exactly what images and words go together, and they have received feedback on their scripts and storyboards from their classmates and teachers. In other words, students are equipped with the tools they need to complete this step. Providing students with ample preparation for classroom activities, as has been done here, will help build student self-concept and confidence, which in turn fosters relatedness (Muñoz-Restrepo et al., 2020). Competence: Working independently, yet in a supportive group environment gives students the chance to seek help and guidance from their teacher when needed, and to provide support to each

	other as peers. This environment will enable students to gain competence in their mastery of the skills being used (digital tools and English skills). This in-class "workshop" time is essential and should not be skipped.
TIP: With the popularity of social media and social media content creation, some students may come to class with a high level of digital literacy which will translate directly to ease of use with the We Video tool, while others may have very little experience with these kinds of digital tools. So, allow each student to work at their own pace. As the teacher, it is also important to offer students extra help when using the tools. For this reason, it is important that the teacher uses a software program they are adept in using.	Competence: For students with a great degree of digital literacy, having a chance to combine their proficiency in digital literacy with their English language skills is likely to foster a sense of competence in these students. Relatedness: For those students who are not as familiar with these kinds of digital software, offering them one-to-one help when it is needed will show that you are personally invested in their projects, thus fostering relatedness.
III. Explain Homework (5 minutes) • ***Homework*: *Continue working on digital stories at home***	Autonomy: Providing rationales supports autonomy (Reeve, 2011).

• Tell students they should continue making progress on their digital stories at home, and that the next class session is also dedicated to working on the digital story, and it is due, completed, in two sessions from todays' session.	
Session 7	
I. Creating the digital story: In-class work time (35-40 minutes) • This session is also completely devoted to creating digital stories on the computers. Go around the room and help any students who need assistance, using the target language (English), when possible.	Competence: Giving students clear and explicit instructions about how to submit their work provides students with structure and will decrease any anxiety they may have about the best way to turn in their project. Providing structure in an informational way will support student competence (Alamer, 2021).
II. "Publish": Download to a flash drive or publish online (10 minutes) ***(Step twelve of creating a digital story)*** • Tell students that they may keep working until the end of class, but that those who are finishing can begin to download their completed digital stories onto their flash drive or publish it online to a video-hosting website such as YouTube.	Autonomy: To submit their digital stories, students can choose to publish online or to only download it onto a flash drive. Giving students choice fosters autonomy (Ryan & Deci, 2020).

• For flash drive submissions, completed stories should be in mp4. format, and all 3 stories should be kept in a folder titled "Name's Digital Story Journal". • For online publishing, students should submit the website link to their teacher. • Students will submit each digital story as they complete them. By the end of the third project, the final digital file (or website) should contain their series of three digital stories.	
III. Student Suggestions: Exit Slips (5 minutes) • Ask students to take a sheet of paper and write (in English) one thing they enjoyed about the project, and one thing that they would change about the project, if anything. In other words, give students the opportunity to voice their opinions about the project. Then, if possible, adjust and adapt the next mini project within this unit plan to incorporate some student suggestions. • These student suggestions are a kind of "exit slip" (Reeve & Cheon, 2021, p. 57) which can be done at the conclusion of each digital story journal entry, or more often if the teacher would like.	Autonomy: Giving students a chance to voice their opinions and suggestions about the project, and then taking those suggestions into account by integrating some of them into the next lesson is one way to construct future lessons that promote learner autonomy. Thus, the teacher can cultivate student autonomy "by integrating learning tasks and activities that take learner needs, goals, and interests… into account" (Alrabai, 2021, p. 13). Autonomy: Reading student suggestions will allow the teacher to

	take the students' perspective, an autonomy-supportive teaching practice. By conducting this kind of structured informal assessment, the teacher will be able to better understand their students and adapt accordingly (Reeve & Cheon, 2021). Relatedness: Use of the target language to give their teacher suggestions and comments that will have impact on their learning gives students a real-life application with using the foreign language. Bringing real-life student perspectives into the classroom supports relatedness (Davis & Bowles, 2018)
IV. Explain Homework • ***Homework: Complete your digital story and download it onto your flash drive. Also email your teacher your completed digital story in mp4. format. We will watch everyone's digital stories in the next class session.***	Autonomy: Providing rationales supports autonomy (Reeve, 2011).
TIP: Be very specific about instructions for submitting final projects. Provide students with your email (or an alternative	Autonomy: Providing clear instructions and guidelines creates structure, which

way to digitally submit), and make sure they know to also bring their finished project to class on their flash drive.	in turn provides autonomy support (Deci & Ryan, 2016).
Session 8	
I. Viewing the Digital Stories • During this session we will view all the digital stories. • Try to make time for student comments and questions between each student's story (time for questions and comments can be in-between screenings—as one student connects their flash drive and queues their digital story for viewing, students can ask questions/comment about the previous digital story).	Relatedness: This is a very important part of the unit and should not be skipped. Students finally get to share the culmination of their hard work by viewing their stories with their peers, and this will create a sense of community in the classroom, which will foster students' feelings of relatedness. Furthermore, having this viewing day for all the stories to be screened gives students a shared goal to work towards. That is, they are participating in cooperative learning. Cooperative learning is likely to generate motivation. Cooperative learning situations commonly have a positive emotional atmosphere and produce less anxiety than other learning structures (Dörnyei & Ushioda, 2011). A positive classroom atmosphere

	should foster students' sentiments of relatedness.

The following table provides a summary of the Procedure Guide. In the left column, are summarized elements of the procedure guide, with "step" and "teaching tips" as sub-sections in this column. In the right column are the SDT basic need(s) that are most saliently supported by each step or teaching tip.

Table 3

Procedure Guide Summary Table

Procedure Guide Element	**SDT basic need(s) supported**
Step	
Pair work	Relatedness
Viewing model digital stories	Competence & autonomy
Reviewing handout	Competence
Time for questions, comments, and concerns	Autonomy
Group discussions	Autonomy, competence & relatedness
Introducing DSJ prompt topics	Relatedness
Reading sample story script	Competence
Speaking activities	Autonomy
Explaining homework	Autonomy
Online research in English	Competence & autonomy
Independent in-class work time	Autonomy, competence & relatedness
Peer-to-peer feedback	Relatedness & autonomy

Gathering images	Autonomy
Teacher-led tutorials	Competence
Practicing and recording voice narration	Competence
Providing choice for 'publishing' step	Autonomy
Student Suggestions: Exit Slips	Autonomy & relatedness
Viewing students' digital stories	Relatedness
Teaching Tips	
Building personal connection with students	Relatedness
Sharing an original digital story with students	Relatedness
Using invitational language	Autonomy
Avoiding strictness regarding students' interpretations of the DSJ prompts	Autonomy
Displaying helpful, friendly behavior; being involved with student projects	Autonomy
Allowing students to work at their own pace	Autonomy
Providing rationales for specific steps	Autonomy
Providing structure through clear instructions	Autonomy

Recommendations for Assessment & Feedback

To assess students' final projects, the teacher must design a rubric that is suited to their specific class and that puts emphasis foremost on meaning over grammar and form (see Appendix D for a sample rubric). Of course, grammar and form are very important, however for this project the goal is to communicate a story. Feedback that is focused on meaning over form is competence-supportive (Davis

& Bowles, 2018). Furthermore, the teacher could share the rubric with students before they begin their project. This would be an effective way to communicate clear expectations, thus supporting student autonomy (Ryan & Deci, 2020).

Other forms of assessment to be implemented, as outlined in the above procedure guide, are different kinds of peer-to-peer assessment such as pair discussions, group work, and whole class discussions. These types of peer-to-peer assessment methods are less high-stakes than more formal evaluation and thus student autonomy is supported through diminishing the focus on evaluative pressure (Niemiec & Ryan, 2009).

Throughout each step of the unit, the teacher should be involved with each student's process of creating their DSJ. In this way the teacher can conduct informal assessment of student progress and give students constructive feedback as they progress, thus supporting competence (Al-Amri, 2021). Moreover, when giving students feedback, it is recommended to be specific, clear, descriptive, informational, and non-judgmental, as this type of feedback will both increase students' autonomous motivation and will foster competence (Dincer et al. 2012; Deci & Ryan, 2016; Muñoz-Restrepo, 2020). When it comes to questions, support autonomy by offering students hints so that they can come to an answer on their own (McEown & Oga-Baldwin, 2019).

Discussion

Through the research review, it was found that SDT principles can indeed inform the pedagogical design of a digital story journaling proposal to promote higher levels of motivation in the EFL classroom. Additionally, through examination of the unique characteristics of the digital story journal as related to SDT principles, it is evident that because of these characteristics, a DSJ project applied for EFL learning can provide a solid framework from which needs-supportive environments can be fostered.

SDT needs-support in the DSJ prompts

DSJ Prompt # 1: A story about a dish or recipe

DSJ prompt # 1 asks students to create a digital story journal entry about a dish or recipe and tells a "story" about the dish from ***their*** point of view. The dish or recipe could be one that comes from the students' family or culture, or it could be a dish/recipe that they invented or discovered. This prompt allows students to choose between a variety of options, that is, there are many ways in which the prompt can be interpreted. Giving students choice in the classroom has been shown to increase feelings of autonomy, a sense of choice allows students to feel ownership over an activity (Ryan & Deci, 2020). The prompt allows students to choose the specific direction they take, while still providing clear, structured guidelines to stay within, which supports autonomy and competence (Deci & Ryan, 2016; McEown & Baldwin, 2019; Ryan & Deci, 2020). Students may take any variety of directions with their interpretation, but they must stay focused on the framework of the prompt which is that the story should be centered around a dish or recipe. The prompt encourages students to follow their own interests, which fosters a sense of student autonomy (Davis & Bowles, 2018; Reeve & Cheon, 2021). From the teacher's perspective, through working with students on this project the teacher will get to know them on a more personal level, which can facilitate culturally responsive teaching in future lessons with this group of students, and culturally responsive teaching is an autonomy-supportive practice (Reeve & Cheon, 2021).

DSJ Prompt # 2: Identity

DSJ prompt # 2 allows students to interpret what 'identity' means to them, thus the prompt presents them with significant choice. One way to support students' autonomy is to give them activities that maximize their perceptions of having choice in those activities (Niemiec & Ryan, 2009), just as this

DSJ prompt does. The main goal of the prompt is not for students to showcase perfect grammar or pronunciation, but rather, for students to communicate a story about their identity effectively. Thus, the prompt focuses on meaning over form, fostering competence (Davis & Bowles, 2018). Finally, the prompt centers students' experiences and cultural identities and is thus an example of culturally responsive pedagogy, which supports relatedness in the classroom (Davis, 2018).

DSJ Prompt # 3: "Op-Ed"

DSJ prompt # 3 asks students to create their own "opinion editorial" digital story. Students learn about what an opinion editorial is, and then create their own. This prompt is SDT-needs supportive in a variety of ways. Students are presented with meaningful choice through the prompt, supporting autonomy (Alamer, 2021; Dincer et al. 2012; Ryan & Deci, 2020). Up to this point in the unit, this DSJ project is the most ambitious subject matter conceptually, thus presenting an optimal challenge for students, which supports student autonomy and competence (Niemiec & Ryan, 2009; Reeve, 2011). To write their script for this digital story, students will look outside of their personal experience and place themselves in the context of their larger community. Even if the student chooses to do an "op-ed" on a daily life matter, they will "make a case" for their point of view to the audience (in this case, their peers and teacher in class). Additionally, this being the third digital story journal entry, students have gone through the process of creating digital stories twice already and will have a good mastery level of all the steps to create a digital story. This repeated practice translates to student preparedness, in turn building their confidence and thus supporting relatedness (Muñoz-Restrepo et al., 2020). Furthermore, by presenting activities that are personally relevant to students and that consider their life experiences, the teacher welcomes students to pursue their own interests, supporting autonomy (Reeve & Cheon, 2021).

Limitations

The proposal has been designed to support students' 3 basic psychological needs according to SDT, however there has been some debate about whether the need for autonomy as a basic need is truly universal, or if instead, it is only applicable in Western, individualist societies, and not in Eastern, collectivist societies (Nalipay et al., 2020). Proponents of the theory contend that the psychological need for autonomy is indeed universal. Richard Ryan has asserted that the basic need for autonomy is universal, regardless of whether a culture values autonomy, and moreover, that one can be autonomously individualistic or autonomously collectivist (2016). Within the scope of the present research review, a handful of studies were found that have shown SDT principles and autonomy support to indeed be applicable in Eastern cultures, albeit in culturally appropriate ways (see Nalipay et al., 2020; Oga-Baldwin & Nakata, 2015; Zhou et al., 2009). Thus, the extent of choices in this DSJ proposal may need to be adapted to be more appropriate for some cultural contexts. Oga-Baldwin (2020) mentions that rather than prescribing 'choice' broadly, it may be more appropriate in certain cultural contexts to instead provide "a sense of choice in line with cultural practice and values" to support autonomy (Katz & Assor, 2006 as cited in Oga-Baldwin, 2020, p. 3).

As far as practical concerns, limitations for being able to implement the project include limited access to computers and other necessary digital tools, constraints on time available, and constraints coming from teachers' supervisors which may limit the ability to implement such a project.

Future Research

To advance research in the subject of SDT-informed digital storytelling and digital story journaling projects in EFL, the pedagogical proposal presented here could be used to implement an intervention study to examine language learners' SDT needs-support outcomes and motivational outcomes. Davis

(2018) has suggested that future research in SDT and language learning pedagogy should examine specific curricular interventions that both foster and thwart learners' 3 basic psychological needs, and this should be examined in terms of effectiveness and outcomes that the interventions bring about.

Regarding the present DSJ project proposal, a question for future research might be: 'which of SDT's 3 basic psychological needs is targeted the most with this pedagogical proposal and what kind of motivation can be observed through implementation of the proposal?'.

Conclusion

This manuscript has presented the theoretical framework of a pedagogical proposal for use in the English as a Foreign Language (EFL) classroom that is informed by the principles of Self-Determination Theory (SDT). The resulting proposal presented has been designed from the theoretical framework and is a digital storytelling-based learning project: a 'digital story journal' (DSJ). The proposal aims to satisfy students' three basic psychological needs according to SDT, with the aim of generating higher levels of motivation, which can facilitate student learning.

A comprehensive literature review of storytelling, digital storytelling, and journaling in EFL contexts; as well as Self Determination Theory in education, language learning, and EFL has been presented. This literature review has informed the theoretical framework and the resulting DSJ pedagogical proposal.

Through literature review, it was found that there is little existing research that examines digital storytelling use in the EFL classroom through an SDT-informed lens. This manuscript attempts to contribute to filling this gap in the research.

Starting with the belief that digital story journaling can be used as an effective language learning tool in the EFL classroom, a DSJ project was designed through the lens of SDT principles. Furthermore,

the ways in which digital storytelling is characteristically needs-supportive were identified, strengthening the link between digital storytelling and SDT principles in the context of English as a foreign language education. To this end, Self-Determination Theory has been explained thoroughly as a theory and as applied in EFL contexts, with the main takeaway being that supporting SDT's 3 basic psychological needs (autonomy, competence, and relatedness) in the classroom will result in higher levels of learner motivation.

Conclusively, this manuscript has shown that SDT principles can successfully inform the theoretical framework and design of a pedagogical proposal for teaching digital story journaling in the English as a foreign language classroom to promote higher levels of learner engagement and motivation.

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Appendix A

Student handout: 'What is a Digital Story Journal?'

What is a Digital Story Journal?

- What is a Digital Story?
    - Digital stories join the art of storytelling with some combination of digital media—including, but not limited to, images, text, audio, narration, music, and video, which are put together to present a story or information around a theme or point of view (Robin, 2016).
- What is a digital story journal?
    - Your digital story journal (DSJ) will combine the practice of digital storytelling as described above, with 'journaling,' which is a collection of stories, ideas, reflections, and images by one student author, for both personal use and for sharing with peers and teacher, with each entry created sequentially over a given period of time. Your digital story journal will be saved in one digital location (a website, flash drive, electronic folder, or DVD).
    - Your digital story journals will contain 3 short digital stories, during the course of this project you will receive 3 different 'journal prompts' to create your DSJ.

12 Steps to Create a Digital Story (Adapted from Robin, 2016, p. 24).

- Step 1: Choose your topic within the guidelines of the digital story journal prompt.
- Step 2**:** Conduct research on your topic. You may use the internet, or books. If your topic doesn't require formal research, use this time to take notes, gather your ideas, ask yourself questions or interview someone on the topic.

- Step 3: Write your first draft for your script. The script is what you will read aloud when you record your narration for your digital story.
- Step 4: During class, you will work in pairs to give each other feedback on your scripts.
- Step 5: Revise your script.
- Step 6**:** Find and/or create images to add to your digital story.
- Step 7: Ensure that the media elements in your digital story are respectful of copyrights. (We will review 'copyrights' in class)
- Step 8: Create a storyboard for your digital story.
- Step 9: Record the audio narration for your digital story.
- Step 10: Add music into your digital story (optional).
- Step 11: Create the digital story in the appropriate software or web-based program. (We will have a software/program tutorial in class).
- Step 12: Publish your digital story online. (For our class, this step is optional, you may opt to 'publish' your stories onto a flash drive or DVD; or email them directly to your teacher).

<u>The 7 elements of a digital story</u>

1. Point of View: The theme behind the story, the author's perspective.
2. A Dramatic Question: A question to capture the viewers' attention; to be answered later in the story.
3. Emotional Content: Connect with the audience via incorporation of emotion and meaningful content into the story.
4. The Gift of Your Voice: Personalization of the story through the use of your unique voice.
5. The Power of the Soundtrack: Music or other audio elements to add another layer of depth to the story.

6. Economy: Efficiently illustrating the story in a meaningful way without overloading the audience with an excess of content. Using enough content to keep viewer attention but not going overboard.
7. Pacing: The rhythm of the story; sustaining interest through rhythm. (Jakes Online, n.d.; University of Houston College of Education, n.d.)

- List of websites to see completed digital stories:
    - www.storycenter.org/stories
    - www.digitalstorytelling.coe.uh.edu/example_stories.cfm

Appendix B

Completed Storyboard Example

Storyboard **Digital Story Title:** Weekend Breakfast (Digital Story Prompt #1)

Visual Element	Audio or Music	Narration
1 - Solid black background with title 'Weekend Breakfast / by Anika Kent / Digital Story Journal Entry # 1' fades into the video 2 – Stop-motion letters video ('Weekend Breakfast')  	No extra audio	Growing up, my family and I would often have a big, home-cooked breakfast on weekends, either on Saturday or Sunday mornings. My parents taught my brother and I how to cook certain breakfast treats, by letting us help them cook breakfast. When we helped with the cooking, it was usually one of three sweet treats: French Toast, pancakes, or waffles. Of these three, there was one that was always my absolute favorite.
Other Notes: Video time – 23 seconds 'Crossfade' into next video		
Stop-motion clock video  	No extra audio	My brother and I were usually up early in the morning, watching cartoons in the living room. Eventually, sometime later in the morning, we would join one of our parents in the kitchen, and all together, we would begin making breakfast.
Other Notes: Video time – 14 seconds 'Crossfade' into next video		
Batter-making stop motion video & first picture 	No extra audio	My favorite thing to make for breakfast was pancakes. Some days, we'd make the pancakes "from scratch", but other days we'd just make the pancake batter with a pre-made pancake mix, and all we had to do was combine the proper amounts of pancake mix, water, and milk. Either way, we'd add all the ingredients to a big bowl and then mix the ingredients together with a fork until the batter became smooth.
Other Notes: Video time – 28 seconds; Picture time – 2 seconds 'Crossfade' into next picture		

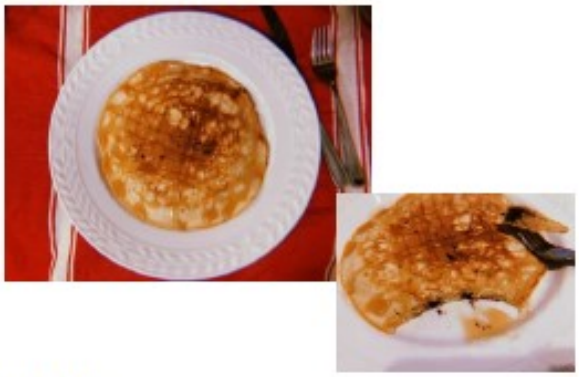
Appendix B (continued)

Visual Element	Audio or Music	Narration
	No extra audio	Then, we'd turn on the stovetop burner. We'd add oil to a frying pan and wait for it to heat up.
Other Notes: Picture time – 7 seconds 'Crossfade' into next picture		
	No extra audio	We'd make sure to have the chocolate chips nearby and we'd pour the batter onto the hot pan. Then, we'd grab a handful of chocolate chips to add to the pancake.
Other Notes: Picture time – 10 seconds 'Crossfade' into next picture		
	No extra audio	I remember watching the way my dad threw the chocolate chips into the pancake batter, throwing each chocolate chip with enough momentum to make sure that they didn't just sit on top of the pancake batter, but that they would sink into it. The chocolate chips always made a popping noise as they landed on the batter. I learned to do it this way too… instead of just dropping the chocolate chips onto the pancake batter, I would aim and throw each one so that when it landed it would start to sink into the batter right away.
Other Notes: Picture time – 30 seconds 'Crossfade' into next picture		

Appendix B (continued)

Visual Element	Audio or Music	Narration
	No extra audio	Sometimes, the chocolate chips wouldn't fully sink into the batter, so then we'd use a fork to press them in.
Other Notes: Picture time – 4 seconds each 'Crossfade' into next picture		
	No extra audio	Another trick was knowing when to flip the pancake. If you waited too long, the pancake would get burnt, and if you didn't wait long enough, you'd end up with a big mess as you tried to flip it over. The trick was to wait until the edges were cooked and you could see little bubbles all over the top of the batter. Then, with the spatula, and in one smooth, swift movement, you'd flip the pancake.
Other Notes: Picture time – 18 seconds; 4 seconds 'Crossfade' into next picture		
	No extra audio	The second side always cooked faster than the first and was easier to flip over.
Other Notes: Picture time – 4 seconds 'Crossfade' into next picture		

Appendix B (continued)

Visual Element	Audio or Music	Narration
	No extra audio	When the pancake was done cooking, we'd take it off the frying pan and stack the pancakes on a plate. We'd take turns making the pancakes, until we had used the entire bowl of batter.
Other Notes: Picture time – 10 seconds 'Crossfade' into next picture		
	No extra audio	After cooking, of course, we all sat down to eat together. We would put honey or syrup on top of our chocolate chip pancakes. A sweet treat to start the day.
Other Notes: Picture time – 6 seconds & 4 seconds 'Crossfade' into next picture		
Words: "by Anika Kent" on white background	No extra audio	
Other Notes: Picture time – 5 seconds Fade out		

Appendix C

Sample Storyboard Template

Storyboard **Digital Story Title:** (Digital Story Prompt #)

Visual Element	**Audio or Music**	**Narration**
Other Notes:		
Other Notes:		
Other Notes:		

Appendix D

DSJ Sample Assessment Rubric

DSJ Project #_____				
#	**Assessment Item**	**Assessment Criteria**	**Score: 54321**	**Feedback**
1	**Clear point of view**	The story establishes and maintains a clear theme, storyline, or perspective throughout the digital story.		
2	**A dramatic question or important statement**	The story contains either a question that is answered later in the story, or an important statement that is further elaborated on later within the story.		
3	**Meaningful / Emotional Content**	The story shows a meaningful, personal point of view from the author.		
4	**Use of Economy**	The story is illustrated in a meaningful way, using enough content to keep the viewers' attention but without overloading the viewer with an excess of content. .		
5	**Pacing of story**	The story is paced well and keeps the viewer interested through its' rhythm. The narration has a rhythm at matches the storyline.		

6	**Narrator's voice**	The narrator has used the gift of their unique voice. The narration has personality and avoids sounding monotone.		
7	**Use of English language**	The use of the English language in the narration/script is understandable and clear. The story is clearly communicated to the listener through the English language.		
8	**English language pronunciation**	Effort has been demonstrated with regards to pronunciation in the English language, and the narration is understandable for the viewer.		
9	**Audio Recording of Script**	The script recording was done carefully. The narration is clear and comprehensible without an excess of background noise.		
10	**Use of images**	Effort was shown to select or create images that help to tell the story; creative thinking was used when pairing the script with selected images.		
11	*Extra Credit: Originality*	Some of the media used is completely original (photos, images, soundtrack, sound effects, etc.).		

12	*Extra Credit: Soundtrack*	Effort was shown to select, edit, or create music for the digital story and the music was used strategically.		

Assessment items #1-6 & #12 have been created based on the 7 Elements of a Digital Story as developed by StoryCenter (formerly The Center for Digital Storytelling) (Jakes Online, n.d.; Moradi & Chen, 2019; University of Houston College of Education, n.d.).