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REVIEW ARTICLE

Variations in Need Supports in Education as a Function of Cultural and Economic Factors: Perspectives from Self-Determination Theory

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Abstract
Self-Determination Theory (SDT) posits that the basic psychological needs for autonomy, competence, and relatedness are universally essential to high-quality motivation and wellness in educational settings. A strong focus of SDT has been on the affordances and obstacles to supporting these basic needs, which can vary considerably between classrooms, schools, school systems, and cultures. In this review, we briefly review the evidence for SDT's "universality without uniformity" claims, showing that the importance of these three basic psychological needs for student well-being and academic functioning is empirically well established across cultures. However, examining variability, our discussion focuses on how economic, societal, and cultural factors may impact parent and teacher practices and educational policies, affecting the extent to which learners' basic needs are supported. Illustrating this, we describe the ways in which SDT has been received or applied in 10 different societal-cultural contexts. These observations suggest that as yet few countries have enacted educational policies with students' basic needs in the forefront. Many instead emphasize practices and policies with little supportive evidence, such as pervasive grading, a focus on high-stakes testing, and limited content choice, factors that can lead to basic need frustration and disengagement for students and educators. Cultural ideologies can also create a bias against a focus on flourishing for all, and economic factors often limit teachers' access to training and resources. Yet, some educational systems have incorporated SDT principles, and we identify factors that have contributed to this. We conclude by calling for a stronger focus on supporting learners' basic psychological needs as part of both teacher training and educational policies.

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Supporting student *flourishing* is a basic aim of education. Flourishing concerns the development of skills and knowledge that will allow a person to pursue what matters to them. It also requires "living well ….in a way that is satisfying" (de Ruyter et al., 2022). Flourishing, that is, entails preparation to live well, in an atmosphere that also supports well-being in the present.

In arguing for a consensus on this point, Curren et al. (2024) noted that only eight countries declined to adopt the 1948 Universal Declaration of Human Rights, which states that "education shall be directed to the full development of the human personality" (United Nations, 1948, Art. 26, § 2). The Convention on the Rights of the Child (United Nations, 1989, Art. 29) similarly called for education that promotes "the development of the child's personality, talents and mental and physical abilities to their fullest potential," a proposal only one nation declined. Finally, the recent UNESCO *International Science and Evidence Based Assessment of Education* argued for moving beyond a conception of education as human capital formation, focusing instead on how to maximize human flourishing (Duraiappah et al., 2022). Thus, representatives of nearly all countries have, on multiple occasions, agreed that a primary aim of education should be the promotion of student flourishing (see also Arthur et al., 2025).

Self-Determination Theory (SDT; Ryan & Deci, 2017) is a broad theory that is centrally concerned with human flourishing, with a focus on the common needs underlying people's capacity for such healthy psychological development. Building on a long tradition of research (Ryan et al., 2022), SDT argues that there are universal psychological needs, the satisfaction of which is essential to flourishing, defined in terms of wellness, integrity, and full functioning. These are the needs for *autonomy* (a sense of volition and willingness), *competence* (a sense of mastery and growth), and *relatedness* (a sense of belonging and being cared about). SDT argues that in educational contexts where these basic need satisfactions are supported, learners will show higher quality engagement and better learning; when these need satisfactions are thwarted students will show lower quality motivation, diminished performance, and ill-being. SDT is also explicit in its view that supporting basic needs does not compromise learning or performance but rather enhances them. Thus, the theory does not see a "tradeoff" between student achievement and well-being but rather posits that both can be catalyzed by educational environments designed to foster basic need satisfactions (Vansteenkiste & Soenens, 2025).

In specifying these basic needs, SDT provides a clear theoretical and empirical basis by which to reflect on, evaluate and critique educational contexts. Insofar as this evaluative focus is primarily on the *process* of education, it does not prescribe, but rather allows for, great variety in the *content* of education. Educational systems may have different norms, knowledge fundamentals, and values they wish students to internalize. Yet SDT posits that if the processes by which such contents are transmitted support basic need satisfactions, the resultant learning will be of higher quality, and more likely result in enduring interest and learning. In contrast, need thwarting contexts lead to poorer internalization, shallower learning, and higher drop-out.

In this contribution, we briefly review current evidence on the universality principle that guides much SDT research. Although SDT posits that autonomy, competence, and relatedness are universally essential for students' thriving, it also recognizes that the benefits of these needs can be differentially expressed, and strategies for supporting them can vary (within limits) across cultural contexts. We discuss this "soft moderation" framework, which is based on the "universality without uniformity" principle (Soenens et al., 2015; Vansteenkiste et al., 2019) as an ongoing research agenda within SDT. However, our central focus in this contribution is on another source of variation in educational approaches to motivation and wellness -namely how pervasive cultural, economic, and societal factors can have a downstream impact on parents' and educators' support learners' psychological needs. Referring to Fig. 1, our discussion will thus focus primarily on the left side of the model, and how various pervasive factors have "downstream" influences on all the processes to the right, including teachers' and parents' values, aims, and the need supports associated with them.

Current Evidence for the Universality Hypothesis

Universal Role of Basic Psychological Need Supports

The literature on SDT's basic psychological needs in education is large, spanning dozens of nations around the globe. In general, the evidence, both correlational and experimental, shows how learning environments that support the satisfaction of students' basic needs for autonomy, competence, and relatedness enhance intrinsic motivation, engagement, and achievement (e.g., Baten et al., 2020). Longitudinal studies further show that the more students perceive the learning environment as autonomy

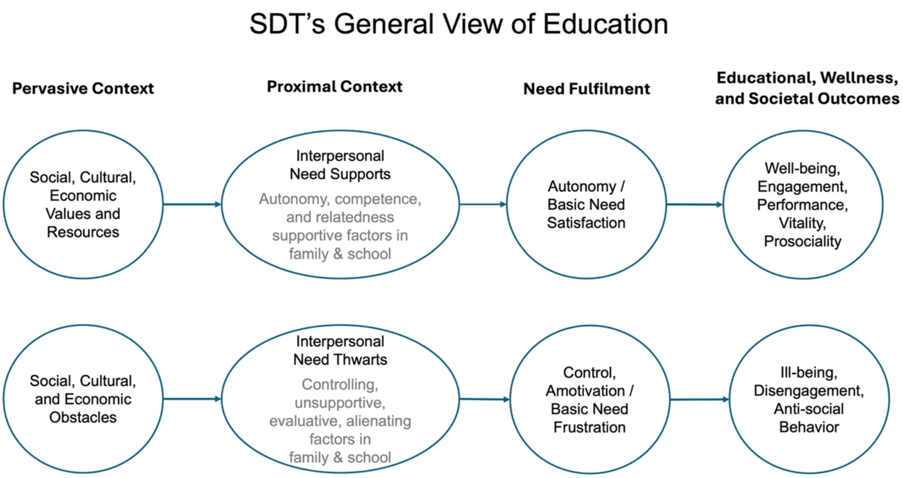

Fig. 1 Self-determination theory view pervasive and proximal influences on education

supportive and well-structured, the more they become autonomously motivated, and show enhanced outcomes (e.g., Cheon et al., 2012; Raine et al., 2025). Studies from diverse nations also show that using testing and grades to externally motivate learners can lead to decreased intrinsic motivation and autonomy (e.g., Chamberlin et al., 2018; Grolnick & Ryan, 1987; Pulfrey et al., 2011) as well as greater external regulation, amotivation (Johnson et al., 2011) and fear (Krijgsman et al., 2017).

Yet one cannot confirm or disconfirm universality hypotheses via individual studies. Required are meta-analytic approaches to look for moderating effects as a function of contexts and country. Fortunately, a substantial number of meta-analytic studies are now available, facilitated by the critical mass of SDT findings that have accumulated over several decades (Ryan et al., 2022). We thus turn to a few of these meta-analytic reports.

A basic assumption of SDT is that greater autonomy is associated with enhanced student outcomes. Testing this, Howard et al. (2021) meta-analytically examined the associations of each type of motivation described in SDT's "continuum of autonomy" with 26 student outcomes reflecting academic performance, well-being, goal orientation, and persistence. Based on 344 samples in which these motive types were measured along with relevant outcomes, results generally showed that the greater the relative autonomy of each motive, the better the outcomes associated with it. *Intrinsic motivation*, a highly autonomous form of motivation characterized by enjoyment and interest, is substantially predictive of student success and well-being. *Identified regulation*, another autonomous form of motivation based in valuing learning, is particularly related to greater persistence. *Introjected regulation*, posited in SDT to represent an internally controlling form of motivation, was also positively, though less strongly, related to persistence, but also to lower wellness and greater ill-being. *External regulation*, an even more controlling form of motivation, was not reliably associated with performance or persistence but predicted ill-being. Finally, *amotivation* was related to poorer outcomes both for performance and wellness. Most relevant for our current discussion was that there was no clear pattern of differences in these relations as a function of the country from which samples were drawn. Notably introjected regulation, identified regulation, and intrinsic motivation all related somewhat more positively to engagement in Eastern samples, suggesting minor cultural variation. Yet, as noted by the authors, the expected associations between motivation and outcomes were reliable and robust across cultural contexts.

Vite et al. (2024) meta-analytically examined the relations of autonomy need satisfaction to well-being, drawing from 90 K to 12 samples. They found that autonomy need satisfaction was positively associated with well-being and negatively with ill-being, while frustration of autonomy yielded the opposite pattern of relations. Important to our discussion, moderator analyses indicated that the relations between autonomy satisfaction and wellness were evident across cultures, but were significantly but not robustly stronger in East Asian countries compared to the USA, Canada, or Northern Europe. Such findings are opposite to theories suggesting that autonomy is less important for East Asian students (e.g., Markus & Kitayama, 1991).

King et al. (2024), using PISA 2018 data from 70 countries, examined the effects of need-supportive teaching styles across diverse cultural, economic, and societal contexts. In general, need-supportive teaching was associated with better subjective, eudaimonic, and cognitive well-being across these contexts. Only two minor deviations from the general pattern were noted: the relation between need-supportive teaching and life satisfaction was not significant in Eastern Europe; and the relation between need-supportive teaching and cognitive well-being was not significant in East-Central Europe. Despite these exceptions, King et al. concluded that results supported the universalist assumptions of SDT.

Slemp et al. (2024) also meta-analytically examined need supports, drawing from 881 independent samples spanning diverse life domains and diverse populations. Findings revealed that interpersonal supports for autonomy, competence, and relatedness were positively related to basic need satisfaction, autonomous motivation, subjective well-being, and performance, with all three need supports yielding unique contributions. Relevant here, these effects were similar in size across cultures, with minor variations. Notably, the positive relations of autonomy support to autonomous motivation *weakened* as a function of individualism, whereas relatedness support was more predictive of intrinsic motivation in individualistic contexts, running counter to the view that autonomy support is less important for students in collectivist contexts. However, Li et al. (2025), although not using SDT measures, reported a different pattern of moderation, reporting that autonomy was more important to wellness in individualistic contexts, even as they confirmed that even with such moderation autonomy was "important to all".

Finally, Howard et al. (2024) provided a related meta-analysis concerning need supports that was restricted to student populations. Based on data from 56 nations and 637 samples, they found that need-supportive teaching was positively related with a range of desirable student outcomes including academic performance, engagement, and behavioral conduct, whereas need-thwarting behaviors tended to be associated with negative outcomes. Here again the evidence suggested these effects were reliable across samples from diverse regions and countries.

Universality Without Uniformity

These multinational studies, representing a large and still growing body of literature, indicate that SDT's assumptions about the critical importance of basic need satisfactions for student engagement, performance and wellness are empirically sound, and generalize across diverse cultures. Yet such support for universality should not be interpreted as a claim for *perfect uniformity*. According to SDT, there is some room for variation in (a) the strength of effects associated with need satisfaction and (b) the way in which basic needs can be met across cultures and individual differences (Soenens et al., 2015). Such "soft" moderation effects are generally not expected to alter the positive main effects of need supports but reflect variations in cultural construal and norms. In terms of effects, basic need satisfactions and supports should benefit all learners, even though the strength of these benefits may be somewhat variable by culture and personality. That is, the benefits of need support may be more pronounced for some, but it is very unlikely that anyone suffers from need support (e.g., Flünger et al., 2019).

These gradations stem in part from the critical role of students' perceptions, and what in SDT is termed the *functional significance* of external inputs (Reeve et al., 2022). Functional significance refers to the appraisal and meaning of events with respect to autonomy, competence, and relatedness for that individual (Deci & Ryan, 1985). A variety of factors, including students' cultural and economic backgrounds, may play a role in shaping a student's appraisal of need-related inputs, and in the way they react to them. For example, Helwig et al. (2014) showed that Chinese children, especially from rural areas, had more positive attributions concerning, and anticipated less psychological harm from, parents' use of potentially controlling practices (e.g., parental contingent regard) than Canadian children. Similarly, Chen et al. (2016) reported that Chinese, relative to Belgian, adolescents had a more benign interpretation of parental guilt-induction in the academic domain, which fell in-between parental use of externally and autonomy-supportive strategies. In contrast, guilt-induction was perceived as equally controlling and harmful as external control by Belgian adolescents. Importantly, although Chinese teens had this somewhat more positive appraisal of guilt-induction compared to Belgian adolescents, they attributed the most favorable interpretation to the autonomy-supportive strategies.

Cultural factors can also influence students' appraisals of teaching. Zhou et al. (2012) presented Chinese and US 5th graders with scenarios of potentially controlling teacher behaviors. The Chinese students perceived the teacher behaviors as less controlling and hurtful than the US students, indicating differences in the affective meaning associated with these behaviors. Yet, experiences of control and hurt were empirically associated with lower internalization and poorer motivation across the two cultural groups. Hence, although there is some room for cross-cultural variability in the interpretation of educational practices, as soon as students subjectively perceive parents and teachers as need-thwarting, their motivation is compromised (Ryan et al., 2023).

A second potential source of diversity within SDT's assumption of universality involves the inroads towards need satisfaction. Whereas some need-supportive practices are universally beneficial, the effects of other practices can be moderated by cultural background and personality. Comparing samples from Ghana and the US, Marbell-Pierre et al. (2019) found positive associations between parents' perspective taking and students' intrinsic motivation and sense of competence in both countries. Yet parents' provision of choice (allowing independent decision-making) was related to positive educational outcomes in the US but not Ghana. The effects of choice provision – a strategy that may enable but not guarantee need satisfaction – can also depend also on students' personality (Patall & Hooper, 2018). For instance, Waterschoot et al. (2019) found that students high on indecisiveness benefited less in terms of intrinsic motivation from opportunities for choice. This moderating effect was again a matter of degree, as even students high on indecisiveness reported better outcomes when having choice.

Such findings exemplify how cultural orientations and values can differentially influence children's interpretation of parent and teacher behaviors, albeit within limits. These cultural variations in construal and impact of need-supportive and need thwarting behaviors are an important and active area of research in SDT and suggest that optimally motivating a student is to some extent a matter of tailoring (Aelterman & Vansteenkiste, 2023; Vansteenkiste et al., 2019), ideally applying need-supportive elements that match the student's cultural and individual differences. Yet we caution that this variation is limited. This is why, for example, meta-analyses show that parental autonomy support predicts child wellness, and parental control predicts child ill-being, across cultures and regions (see Bradshaw et al., 2024).

Pervasive Influences: Observations from Multiple Countries

School policies, cultural values, and educational resources differ across countries. These variations likely influence the extent to which educators are both enabled and prone to support student needs for autonomy, competence, and relatedness. In the remainder of this contribution, we thus focus less on SDT's claims concerning the universal importance of basic need satisfactions (which we see as relatively well established), instead exploring factors within countries that may differentially impact the reception of SDT or its need-supportive practices.

Specifically, we consider 10 "case examples" of how SDT is being researched and enacted in different cultural contexts, as well as the apparent obstacles to putting need supports in place. Although not intended as a representative sample of nations, these observations are drawn from countries varied in their economic conditions and cultural values, as well as their levels of achievement as assessed in OECD's 2022 PISA data, as documented in Table 1. Our intent in these brief country descriptions is to identify a few salient factors and overarching themes in each of these varied contexts related to need supportive educational initiatives.

Republic of Korea

Broader Educational Context

Deeply rooted in Confucian values that emphasize collectivism, hierarchy, and achievement, Korean parents place immense value on academic success, seeing it as the key to future prosperity and social standing (Chung, 2015; Kim & Park, 2006). Many invest heavily in private tutoring (hagwons) with expectations that children will gain entry to prestigious universities. In this context educators and parents often view SDT's focus on intrinsic motivation and autonomy with skepticism, fearing it may lead to reduced academic performance.

Fitting with this view, according to the OECD's 2022 PISA report, Korean students rank among the top nations in academic performance, yet 22% of 15-year-olds report dissatisfaction with their lives, highlighting a disconnect between academic success and wellness. This "achievement paradox" suggests that the high pressure to perform in Korea's competitive system takes a heavy toll on students' mental health. This intense focus on achievement can also engender controlling parent and educator behaviors (Shin et al., 2018), with many students experiencing significant stress, mental health challenges, and even suicidal tendencies (Kwak & Ickovics, 2019; Yoo et al., 2017).

South Korea's educational system also emphasizes rote learning and high-stakes exams. This highly standardized system leaves little room for teacher flexibility and student autonomy that SDT encourages. Efforts like the "Exam-Free Year Program" (Kim & Kim, 2020) have aimed to alleviate some of this pressure, but balancing

Table 1 Cultural dimensions and PISA performance of the 10 case study nations

Countries	Cultural Dimensions						Mean scores in PISA 2022		
	Power distance	Individualism	Motivation Towards Achievement and Success	Uncertainty Avoidance	Long Term Orientation	Indulgence	Mathematics	Reading	Science
Belgium	65	81	54	94	61	57	489	479	491
Finland	33	75	26	59	63	57	484	490	511
Iran	58	23	43	59	30	40	-	-	-
Israel	13	56	47	81	47	-	458	474	465
Peru	64	20	42	87	5	48	391	408	408
Republic of Korea	60	58	38	85	86	29	527	515	528
Russia	93	46	36	95	58	20	-	-	-
Singapore	74	43	48	8	67	46	575	543	561
Türkiye	66	46	45	85	35	49	453	456	476
United States	40	60	62	46	50	68	465	504	499

No data available in PISA 2022 for Iran and Russia

Dimension descriptions:

Power distance: Attitude of the people regarding inequalities and acceptance of an unequal distribution of power. The higher the score is, the more hierarchical is the culture.

Individualism: In an individualist society people take care of themselves and family, and self-image is better described as "I". In a collectivistic society, people self-image is better described as "we" and people belong more to "in groups". The higher the score, the more individualistic is a society, the lower, the more collectivistic.

Motivation towards achievement and success. The higher the score, the more competitive; a lower score means that society more strongly values caring for other people and quality of life.

Uncertainty Avoidance: This dimension refers to how threatened do members of a society feel by unknown or ambiguous situations. The higher the scores, the more need for rules, and less acceptance of new ideas.

Long term orientation: When societies have a low score, they prefer to keep traditions and norms seeing changes in societies as suspicious. When a society scores high, they have a practical approach.

Indulgence: High scores suggest a value for enjoying life and having leisure time.

demands for rigor as defined by test scores with emotional health remains a difficult task (Shin, 2022).

SDT-Grounded Research, Dissemination, and Application

Considerable research has demonstrated the relevance of SDT to the Korean context. For example, Jang et al. (2009) modelled the positive relations between need-supportive learning environments and student engagement, achievement, and well-being. Perhaps especially relevant to this cultural context are SDT's claims that need supports can positively impact *both* academic performance and wellness (e.g., see Howard et al., 2021, 2024), and that, despite skepticism, there need not be a "tradeoff" between the two. In particular, Korean schools can have both high structure (goal clarity, rules and scaffolding of challenges) and high autonomy (emphasis on interest, value and agency) (e.g., Jang et al., 2010; Reeve et al., 2022). This is important to educators who are often reluctant to disrupt an established framework that has consistently produced high-achieving students.

The reluctance to incorporate autonomy-supportive principles is also at odds with the growing research demonstrating the effectiveness of training programs to facilitate more autonomy-supportive teaching styles in Korean teachers. Results from randomized control research designs with longitudinally assessed dependent measures have consistently revealed strong positive effects of such interventions for both students (gains in engagement, well-being, academic achievement, e.g., Cheon et al., 2020) and teachers (longitudinal gains in job satisfaction, teaching self-efficacy, e.g., Jang et al., 2023).

Policy changes within the past 5–10 years reflect small, but incremental changes that align with SDT principles—such as increased student choice, support for mental health, and fostering creativity. Yet, a full integration of SDT into Korea's education system will likely take time, but the hope is that empirical evidence will incentivize ways to integrate SDT principles, creating educational environments that foster both achievement and well-being.

Singapore

Broader Educational Context

Singapore represents a second Asian context in which SDT has been studied and implemented. Singapore's cultural backdrop is characterized by a blend of collectivism, hierarchical respect, a strong emphasis on education, and a commitment to multiculturism. In Singapore, educational achievement is highly valued by parents and an ongoing issue is parental pressure to succeed (Luo & Zhang, 2018).

Without natural resources, Singapore has focused on building human capital through education for decades. The success of Singapore's system is attributed to a strong tripartite relationship among the Ministry of Education, the National Institute of Education (the sole teacher training institution), and Singapore Schools, and a strong investment in teachers (Liu, 2022). Singapore has regularly ranked at the top of achievement rankings. Yet, over the last decade, Singapore education has also increasingly moved towards the more holistic goal of enhancing the personal development of every child, including positive character formation, societal participation, and self-actualization. This has resulted in numerous changes to school curricula such as reducing assessment frequencies, an increased focus on the interest-value of learning contents, and changes in the grading system to reduce social comparisons.

SDT-Grounded Research, Dissemination, and Application

Amidst this shift in educational focus, SDT has had an important and explicit role. Much of this implementation of SDT in Singapore schools has been facilitated by the *Motivation and Education Research Laboratory* (MERL), at the *National Institute of Education*, which began in 2009 as a satellite lab of the Human Motivation Group at the University of Rochester. Now with 20 plus affiliated faculty, MERL researchers have demonstrated the applicability of SDT's constructs within the Singaporean context (How & Wang, 2016; Ng et al., 2015; Wang et al., 2016). For example, Wang et al. (2019) assessed students from 10 secondary schools in Singapore, showing that satisfaction of SDT's basic needs was positively related to autonomous motivation and lower pressure. Intervention studies applying SDT strategies have also resulted in positive student outcomes such as improved efficacy, motivation, and achievement (How & Wang, 2016; Ng et al., 2015; Wang et al., 2016).

In Singapore parental desires for academic success are high. In this cultural context Luo and Zhang (2018) found that high parental *expectations* were associated with greater classroom attention and effort at homework both directly, and indirectly through identified regulation and intrinsic motivation. Yet in contrast, parental *pressure* predicted classroom disruption and homework distraction directly, and indirectly through external and introjected regulation. Such findings underscore the relevance of SDT in this achievement-focused culture and suggest that parents can communicate high expectations in ways that supports basic needs. Indeed, even among elite students in Singapore, higher autonomy predicts adaptive outcomes (Kong & Liu, 2020).

In 2017 MERL contributed to a master document for the *Ministry of Education* as part of the launch of the Singapore Teaching Practice (STP) model. The explicit inclusion of SDT in the STP was a significant milestone, making Singapore among the first countries to disseminate SDT nation-wide, and illustrating that a high standards system can effectively employ need-supportive practices, even in the context of collectivistic cultural norms.

Türkiye

Broader Educational Context

Türkiye's cultural position hovers between collectivism and individualism. As Kagitcibasi (2013) describes, a Turkish student's self-determination entails support for autonomy while emphasizing relatedness between child, parent, and teacher. However, variation in the desired level of autonomy and relatedness in Turkish high-school and university students is also evident (Imamoglu & Karakitapoglu-Aygun, 2006). For example, Meral et al. (2022) found that parents from Eastern versus Western Turkish cities were higher in valuing autonomy.

The *Ministry of National Education* oversees Türkiye's education system, and has initiated significant reforms in recent years, aiming to improve quality and accessibility. Yet despite these change attempts, challenges such as regional disparities, high student-to-teacher ratios, and limited resources persist. Also, many critics view these frequently changing education policies as leaving parents, students, and teachers' frustrated as what to expect from the system, its deliverables, and its outcomes (Yücesan-Özdemir & Özdemir, 2012). Significant hurdles and human rights issues are also salient, especially with respect to disadvantages for females, lower SES students and those with special education needs. Limited economic resources impact teacher training, as Türkiye has educational investments lower than the OECD average (Lindquist, 2017), reflecting perhaps the biggest barrier for a need supportive system.

SDT-Grounded Research, Dissemination, and Application

Research has established the relevance of SDT variables within the Turkish context, showing especially the importance of autonomous motivation and autonomy support to student motivation and achievement (e.g., Michou et al., 2021; Mouratidis et al., 2024; Ozdemir et al., 2016), as well as teacher motivation and wellness. Yıldız and Kılıç (2021) found that Turkish teachers primarily reported identified motivation to teach, characterized by a desire to impact young lives and foster 'the brightness in students' eyes.' Yet Turkish schools and teachers do not have as much autonomy in terms of decision-making, instructions, planning, personnel selection, or course descriptions compared to countries such as France, Ireland, and Hungary (Gershberg, 2005), limiting their discretion to engage topics of student interest, and opportunities to be autonomy-supportive.

Another salient factor decreasing teacher motivation is class crowding, creating behavioral challenges and draining teachers' energy. Teachers also report difficulties in meeting the needs of an increasing number of Syrian refugees. Promisingly, researchers have found that advancing the fulfillment of autonomy, competence, and relatedness needs can help refugees cope with the challenges and traumas that may have suffered (Turan et al., 2022; Weinstein et al., 2016). However, this highlights how teachers also need resources and training to integrate different student needs amidst the cultural, societal, demographic, and economic fluctuations.

Implementing SDT principles in Turkish education thus faces challenges, both cultural and economic. These include adapting SDT principles to fit the cultural contexts of Türkiye and showing how it can help teachers within this rapidly changing society.

Iran

Broader Educational Context

Iranian social life is often described as collectivist, yet both individualism and collectivism are evident within the culture (Ghorbani et al., 2003). In fact, there are various cultures within Iran such as Kurdish and Turkish living in the northwest and Persians living in the center of Iran, with differences in cultural values. There are also hierarchical values in some subgroups of Iranian students, with costs to students' self-determination, especially among females, whose educational opportunities are often restricted, even as females revealed greater performance and higher persistence in school compared with males (Atashak, 2009). Such cultural variations can differently affect students' experiences of need satisfaction and need frustration (Saïb et al., 2024).

There are two types of schools in Iran, public and private. In public schools, limitations in resources and class sizes can affect teachers' ability to attend to students' needs in the classroom or apply more student-center approaches. In private schools, there is more space and equipment, but also a strong emphasis on achievement and final scores, affecting autonomous motivation. Alongside these issues, in families with higher incomes students often are pressured to select advanced courses (e.g., science, mathematics) to enhance their chances of being admitted to study medicine or related fields at university that might lead to higher incomes (Akbari et al., 2014; Sobhaninejad et al., 2014).

SDT-Grounded Research, Dissemination, and Application

Research on SDT in Iranian educational contexts has generally aligned with the theory's propositions. For example, Sheikholeslami and Arab-Moghaddam (2010) found that autonomy was an important predictor of well-being in Iranian college students. Further, it has been shown that Iranian teachers' need-supportive and need-thwarting behaviors are important predictors of students' need satisfaction and frustration, autonomous motivation, and educational outcomes (e.g., Ahmadi et al., 2023; Behzadnia et al., 2019; Mohammadi Sanavi et al., 2019). Another recent longitudinal study showed that teachers' need-support predicted student well-being through the mediating role of need satisfaction and autonomous motivation (Behzadnia et al., 2024). Finally, Ghasemzadegan et al. (2025) describe how Iranian L2 teacher autonomy is often thwarted by micromanagement, limited decision-making authority, and cultural constraints, diminishing teacher well-being.

While research confirms that supporting students' autonomy, competence, and relatedness relates to desirable outcomes, there are significant challenges for the implementation of SDT. Recent reports show that dropout intentions from school have increased dramatically in some areas of Iran (Bayat & Molashahi, 2022), affected by students' socioeconomic status, the low training and poor quality of teachers' motivation, and families' cultural values (e.g., parents' attitudes toward girls' education) (Toorani & Arefnezhad, 2018). Traditional teaching styles frequently rely on grades to motivate and to provide summary evaluations, potentially thwarting students experience of competence and self-determination, and contributing to students' ill-being and higher dropout intentions (Hamedi et al., 2023; Mahdiuon et al., 2017).

In sum, evidence suggests that when Iranian students experience supports for their basic psychological needs they are more autonomously motivated and experience greater well-being and performance, whereas, when they experience need frustration, it results in amotivation, ill-being, and less intention to continue. Nonetheless, there has not been widespread adoption of SDT principles at policy or institutional levels.

Peru

Broader Educational Context

Peru is a highly collectivistic culture. Peruvians also score high on consensus orientation, suggesting a weaker drive for achievement, and a value for relationships and family over recognition or wealth (Hofstede, 2023). Given these values, Peru provides another interesting context for examining SDT's universality claim.

Peru is a society with high discrepancies in wealth and thus differing access to education and levels of school quality. There are several discrepancies in learning outcomes between rural and urban schools. Public schools dominate in rural areas and are state funded. These schools often face challenges with resources, infrastructure, and teacher availability (Rojas-Apaza et al., 2024; Yupanqui, 2025). Private schools are more common in urban areas, however there are big differences among them as there has been an increase of private schools at a lower cost but that do not offer good quality education (Balarin, 2015). On top of these differences, public school teacher salaries are often lower than in other professions and there is the need to revalorize the teaching profession (Saavedra & Gutierrez, 2020) as being a teacher has a poor reputation in Peru. Not surprisingly, teachers' motivation suffers, and affects students' motivation and educational outcomes (Saavedra & Gutierrez, 2020).

Between 2012 and 2023, the Peruvian educational coverage has increased from 92.6% to 98.6% in primary education (6 to 11 years old) while in secondary education it has increased from 81.6% to 90.9% (Rojas Arangoitia et al., 2024). Even though the Peruvian educational system has increased the educational coverage, the crucial problem has to do with the quality of the education that is offered in the schools. Despite the fact that there has been an increase in the Peruvian average scores in PISA 2022, the results obtained by the Peruvian student population in comparison with other countries are still poor. Peru obtained the last positions in mathematics, reading comprehension and sciences (the mean average is much lower than the average of the OECD countries). Moreover, 23% of the Peruvian students reported not being satisfied with their lives (this is higher than the average of the OECD students which is 18%). Differently than in Korea, Peru does not suffer from the "achievement paradox". Peru faces the double challenge of increasing their academic achievement and improving wellness to move higher up in the ranking.

SDT-Grounded Research, Dissemination, and Application

SDT research began in earnest in Peru with the advent of the Motivation and Emotion Research Group at the Pontifical Catholic University of Peru in 2013. The group has replicated the general findings of SDT in Peruvian samples (Chen et al., 2015) and has additionally been examining SDT's application to impoverished students, an issue that looms large in nations facing severe economic disparities. For example, Benita et al. (2022) reported two studies examining the effects of goals and reasons on academic outcomes in low-SES students from Lima (Peru). Autonomous reasons for pursuing mastery goals positively predicted engagement and mathematics achievement, whereas controlled reasons negatively predicted end-of-year grades. A Ministry of Education (2023) report on 8th grade students similarly documented that those with higher autonomous motivation obtained higher performance in reading. This is important to notice considering the low scores that Peruvian students obtained in PISA evaluations throughout the years.

Matos et al. (2025) tested the effectiveness of an autonomy-supportive teaching training (see Reeve et al., 2022) to help teachers in low-SES Peruvian schools support students' psychological need satisfaction. They randomly assigned teachers of varied subjects to training vs. control conditions. The middle school and high school students of these teachers reported on autonomy support, need satisfaction, and engagement at the beginning, middle, and end of a semester. Results showed that teachers receiving training fostered increased student need satisfaction, controlling for prior need satisfaction, gender, grade level, and class size, with need satisfaction in turn predicting higher engagement, confirming the value of autonomy-supportive teaching in this low-SES setting. Matos et al. (2025a, b) also recently examined the mediating role of need-related experiences in the relations between need-supportive and need-thwarting parenting and the grades and affect of Peruvian high school students. They found support for the mediation model, and also that academic achievement was directly predicted by parental need-support, speaking to the relevance of SDT in Peruvian homes and schools. Moreover, at the university level, when professors were autonomy supportive at the beginning of the semester (as perceived by the students), students reported being more academically engaged. Interestingly, students that were higher in agentic engagement at the beginning of the semester (they voiced their needs, asked questions, etc.) had more autonomy supportive teachers by the end of the semester (as perceived by the students) (Matos et al., 2018).

In sum, there is an increasing interest in research using SDT within Peru, and some initiatives to spread SDT into key sectors of education. This was possible due to SDT courses being part of educational training in universities, as well as by short courses, workshops and training provided to researchers and professionals in their workplaces. For instance, the Ministry of Education has started to include SDT variables as part of their national evaluations. Hopefully it will be possible to continue translating SDT principles into policies at the national level.

Belgium

Broader Educational Context

Belgium in many ways may be an apt cultural backdrop for dissemination of SDT practices. A key characteristic of the Belgian education system is that individual schools and teachers have a high degree of autonomy. While the government sets general standards, schools are free to design their own curricula within those guidelines. Further, Belgium has a system of school choice in which parents can select which school their child attends. Students also can choose between academic-oriented tracks, technical education, or vocational education. The first two years of secondary education (grades 7 & 8) is designed to offer a general foundation and allow students to discover their interests and strengths before making a choice. Finally, except for medicine, students do not need to pass an entrance exam to continue higher education, exam scores in secondary education are not used as a criterion for selective access to studies in higher education, and students of lower socio-economic backgrounds are afforded financial support.

Notably, however, over the past decade, test scores of Flemish (Dutch-speaking) and Walloon (French-speaking) pupils on international assessments for reading comprehension, mathematics, and science have decreased (De Meyer et al., 2023). Because of these trends, there have been increasing calls to set higher standards, with teachers being argued to prioritize knowledge transmission and to take a leading role herein as an expert. This increasing cognitive orientation is supported by the Ministry of Education's initiative to introduce a central testing system. Yet, at the same time, following the COVID-19 crisis, the Ministry also launched a well-being monitor in higher education to monitor students' mental health. At this moment, the debate whether performance or well-being needs to be prioritized is heated, with SDT-scholars arguing that, to advance the debate we need to consider the critical processes fostering *both* improved well-being and performance (Vansteenkiste & Soenens, 2025). Given that basic needs predict both outcomes, the question is how schools can be organized to support them.

SDT-Grounded Research, Dissemination, and Application

Supporting this view, SDT-principles have been strongly confirmed in Belgium. In fact, Belgium has been a center for much SDT research in education and numerous correlational (Vansteenkiste et al., 2009), observational (Haerens et al., 2013), longitudinal (Boncquet et al., 2024), and experimental (Baten et al., 2020) studies have supported the tenets of SDT across all levels of schooling and across diverse subjects, including reading motivation, mathematics, and physical education. Teachers' motivation and need satisfaction have also been studied (e.g., Vermote et al., 2024) and initial steps to develop effective training programs have been undertaken (Aelterman et al., 2014). Partly driven by such research, multiple initiatives explicitly applying SDT have grown, and SDT-based content has been incorporated in the curriculum of students studying human sciences in secondary education and in the curricula of various teacher education programs, especially in Flanders (but less so in French speaking parts of Belgium). We turn now to some salient examples of these trends.

First, the notion of basic needs has been incorporated into the vision of multiple secondary schools, colleges and university institutions over the past 15 years. For example, to support the mental health of higher education students, the Ministry of Education supported the development of MoodSpace (https://moodspace.be/en), an online platform that provides resources and guidance to address the mental health challenges, with large parts of the platform inspired by SDT. MoodSpace includes modules about motivation for studying, the basic psychological needs and need crafting (Laporte et al., 2024) and need-supportive teaching (Aelterman et al., 2014). It also includes self-assessment tools that allow students to gauge their own motivation and need satisfaction, and a self-assessment instrument for teachers.

At the level of primary and secondary education, *Warme Scholen* (Warm Schools) (https://www.warmescholen.net/inspiratie) is a program aimed at fostering positive, inclusive, and supportive school environments. It focuses on reorganizing the way school systems are structured, with the aim of building a need-supportive school climate for both students and teachers. The initiative provides resources to support teachers' mental health, reduce burnout, and improve job satisfaction, recognizing that teachers who feel supported in their own needs are more likely to create a need-supportive learning environment for their students as shown in much SDT research (e.g., Reeve et al., 2022; Slemp et al., 2018).

In another project entitled *motivation*, *engine for your future* (Home - Motivatie), schools were brought together in a network supervised by scholars at Ghent University. After measuring different key indicators (motivation, needs, teaching style, etc.), schools received personalized reports and were guided to implement new actions in their school to support teachers' and students' motivation and wellness. This initiative to systematically monitor students' and teachers' motivation and basic needs as a basis to make evidence-informed decisions offers much promise for positive school-based change.

As a final example, the Flemish government recently launched an *Interuniversity Centre for Expertise on Cognitively Gifted Students* ((https://www.projecttalent.be/) as a resource hub in shaping policies and practices aimed at supporting the motivation, well-being, and performance of gifted students. SDT is one of the key theoretical frameworks guiding the research conducted in the center and the educational practices following from it (Lavrijsen et al., 2024).

In sum, within Belgian education SDT has had an increasingly visible influence, in part driven by strong in-country research on the benefits of need-supportive environments and the publication of several influential Dutch handbooks on SDT (Vansteenkiste & Soenens, 2015, 2025). Nonetheless, perceived tradeoffs between pressure toward test score outcomes and student wellness form the basis of current debates over the primary focus of schools.

Russia

Broader Educational Context

Russian school children generally show high educational results in early school years on PIRLS (reading) and TIMSS (math and science) and average educational results in more comprehensive educational assessments such as PISA by high school. The relatively lower level of academic achievement by the end of school is likely associated with a generally low level of autonomy support in Russian schools (e.g., Chirkov & Ryan, 2001), and an emphasis on a controlling style of teaching, using grades as motivators, high stakes testing, and public comparisons of performance.

The homework demands on Russian adolescents tend to be intense. Russia ranks second in the world in terms of the time students spend on homework, second only to China (OECD, 2012). Russian teachers assign homework in 98% of cases (Vincent-Lancrin et al., 2019) for both elementary and secondary students. Alongside this, in Russian school grades are commonly used by teachers as a means of motivating students and are perceived as the main incentive for learning by students (Gordeeva et al., 2024b). Russian parents tend to criticize their children for insufficient achievement (Elliott et al., 2005), with a negative impact on parent-child relationships, motivation, and well-being and students tending to hide poor grades from parents. This evaluative emphasis has been amplified by the introduction in 2009 of the *Unified State Exam* (USE) in Russian schools, which has become the main criterion for the success of students and educational institutions. Teachers' salaries also now depend on the USE scores of their students. The transition has also stimulated various reporting formats for teachers, increasing teacher stress, and a more controlling style of interaction in the classroom. Indeed, research shows that over the past 20 years, the level of intrinsic motivation for learning among Russian adolescents has significantly decreased; along with their self-efficacy, perceived control, and well-being (Gordeeva et al., 2024b). Accordingly, the teaching profession is becoming less popular and respected, and education is generally becoming less valued.

SDT-Grounded Research, Dissemination, and Application

SDT is generally well known among Russian psychologists, as studies have shown that autonomy support from Russian parents and teachers is an important predictor of students' autonomous motivation and well-being (e.g., Chirkov & Ryan, 2001) and academic achievement (Gordeeva et al., 2024a). Further, the satisfaction of basic needs at school and university levels is associated with greater intrinsic and identified motivation and inversely related to amotivation (Gordeeva et al., 2020; Sheldon et al., 2017). In turn, students' autonomous motivation is related to higher achievement and well-being (Gordeeva et al., 2020, 2024b). Much of this research followed from creation/establishment of the International Laboratory of Positive Psychology of Personality and Motivation, in 2014 at the National Research Institute Higher School of Economics in Moscow. Russian-language surveys were created or adapted to measure basic needs and motivation across elementary, middle, high school, and university students with many publications in Russian.

SDT-based manuals with recommendations for teachers for supporting autonomous motivation and basic psychological needs in the classroom have been published and distributed by the *Impact for the Future Charitable Foundation* to many Russian schools (Gordeeva, 2022). Where practiced, the climate is characterized by more freedom, sense of choice, and optimal challenge. Particular attention is paid to less use of a controlling teaching style, and support for pursuing interests. For example, in one Moscow secondary school (chemistry lyceum), a banner hangs in the corridor stating: "The main and only duty of a lyceum student is to enjoy learning."

Despite studies showing the benefits of supporting basic psychological needs for students' autonomous motivation, performance, and well-being, the principles of SDT have not been widely applied as yet into the Russian education system. The barriers in Russia include: (1) still insufficient knowledge of the SDT and its possibilities by many Russian educators; (2) the focus of society and leaders in education on achievement and control, often at any cost; (3) the distrust of leaders in social science. To move forward steps might include: (1) increasing the quality of teacher training in motivation; (2) translation of basic SDT books on education; (3) providing more rights to teachers in choosing the textbooks and programs; (4) reducing the overall volume of homework; (5) improving grading practices, making assessments less controlling, less frequent, and more private; (6) less emphasis on high stakes testing (USE), and (7) informing parents about the best SDT based practices of interaction with children to support intrinsic motivation, well-being, and achievement.

Israel

Broader Educational Context

Israel is a culturally diverse state, with 73% Jewish and most others Arab (Muslims, Christians, and Druze). The Jewish population is itself diverse, including many immigrants. Israeli Arabs mostly live in separate towns and villages. Among them, the Bedouins are a distinct group with tribal and patriarchal traditions emphasizing family loyalty, honor, hierarchy, and male authority (Cohen et al., 2021), and are collectivist compared to Western norms (Yahel & Abu-Ajaj, 2021). Schools in Bedouin society often reflect the culture, with the student-teacher dynamic mirroring the hierarchical family relationships. Teaching methods are traditional, and principals often adopt a controlling management style (Al-Said, 2024). Arab-Israeli parents are also more likely to report psychologically controlling behavior than Jewish-Israeli parents (Scharf et al., 2017). The socio-cultural fabric of Israel is further characterized by marked inequities between the country's central and peripheral areas (Central Bureau of Statistics, 2019). Each of these cultural groups upholds unique values and lifestyles, differences often manifested in parental and educational practices.

Education in Israel is compulsory, with most schools belonging to the public system. Some schools specialize in specific fields, such as nature or music, while others offer anthroposophical or democratic education. The public system also divides along ethnic lines (Jewish, Arab, Bedouin, etc.); religious affinity; and type of education (standard or special education), yielding a variety of educational approaches and practices. These differences no doubt influence the extent to which students' psychological needs are supported and educators are given autonomy to teach in their own way.

SDT-Grounded Research, Dissemination, and Application

Studies conducted in Israel have indicated the applicability and universality of SDT, both in the general population and in specific sectors, such as the Arab-Bedouin society (Kaplan & Assor, 2018). For example, autonomy support and experiences of need satisfaction were found to positively affect various outcomes, including autonomous motivation, positive emotions, and engagement, while negative outcomes were observed for controlling teaching (Assor et al., 2005). Positive outcomes from autonomy support have been found across different populations, including special education students (e.g., Katz & Cohen, 2014), Bedouin students (e.g., Kaplan et al., 2014) and preservice teachers (Kaplan & Madjar, 2017).

The universality of the theory is also reflected in negative reactions to situations where autonomy is suppressed among teachers. In a qualitative study, Kaplan (2021) examined need satisfaction and frustration among beginning Bedouin teachers. The teachers reported feelings of coercion, exploitation, and gender-based discrimination, and their sense of relatedness to the school was impaired due to cultural factors. As a result, they exhibited controlled motivation, burnout, and impaired well-being. They also reported lower support for their students' autonomy. Such findings are congruent with prior quantitative work, which found teacher autonomous motivation to serve as a critical predictor of autonomy-supportive teaching (Roth et al., 2007).

SDT-based interventions have been developed and successfully implemented in different populations in Israel. Some examples include promoting teachers' capacity to contend with violence and enhance caring without becoming more controlling (Assor et al., 2018) and enhancing agentic engagement among students and teachers in an elementary school serving students of low social-economic status)Kaplan et al., 2021). Together, the findings indicate that teachers can be taught to support students' needs across different educational settings and cultural environments (see Kaplan & Assor, 2018).

It is impossible to overlook the consequences of the war in which Israel is involved at the time this article is written. This ongoing state of emergency has significantly impacted the mental health of all residents, with increases in emotional distress, anxiety, depression, and PTSD symptoms in children, adolescents and young adults (Sabag et al., 2024). In response, a national project was launched by the Israel Trauma Coalition, establishing resilience centers at 22 academic institutions to provide emotional and psychological support to students, faculty, and staff. At Kaye Academic College of Education, the Resilience Center is based on SDT with its primary goal being that of promoting an emotional-social environment that supports basic psychological needs, particularly through an SDT-based pedagogy of resilience. A study of 332 teaching students (Kaplan, 2024) found that, in both Jewish and Bedouin groups, organizational need support was linked to greater need satisfaction and lower need frustration. Need satisfaction partially mediated the associations with resilience, hope, engagement, and autonomous motivation, while need frustration partially mediated associations with depression, anxiety, and post-trauma symptoms. These findings support the applicability of SDT in promoting well-being even in contexts of stress and trauma, while highlighting cultural variations in how needs are expressed (also see Waterschoot et al., 2024).

Finland

Broader Educational Context

As summarized by Niemi et al. (2018) the Finnish system is built around the principles of equity, high-quality education for all, flexible educational structures, and the promotion of life-long learning. Guidelines for curricula are provided by the *Finnish National Agency of Education*, yet local schools are given broad autonomy regarding how these guidelines are implemented, including selection of learning materials and approaches to assessments and grading (Muench et al., 2023). Students commence basic compulsory school at age 7, followed by a choice of either a vocational or general secondary education track (Pulkkinen & Rautopuro, 2022). Most schools are public and tuition and lunches are free. There is much participation by parents, principals, and teachers in forming local policies. Moreover, like Singapore, there is a strong investment in teachers, both in terms of training and salaries, and great societal respect for the profession (Salmela-Aro et al., 2008). Teachers are, in turn, afforded a great deal of autonomy and room for creativity (Fradkin-Hayslip, 2021). Finland's cultural and historical background involves a commitment to collective welfare, and through its emphases in public education on prioritizing egalitarian values, decentralization, and the fostering of a respected teaching profession, Finland has crafted a unique educational system.

Although Finland had been among the top ranked nations on PISA test results in the early 2000's, their rank has declined in recent years, although remaining well above OECD averages. Students remain high ranking in PIRLS (reading) and science (TIMSS). Nonetheless, changes in PISA ranks have led to debates about the sources of these declines, with some citing demographic changes, and others the decentralization of educational standards. Still others emphasize that Finland's national core curriculum (Finnish National Board of Education, 2016) is now focused on cross-disciplinary learning, and skills to enhance students' autonomy and abilities to adapt in modern society, goals that are not as well aligned with PISA's framework, which focuses on problem solving with domain specific knowledge (Muench et al., 2023).

Consistent with this, everyday teaching is generally not driven by high-stakes testing, and there is minimal standardized testing. Classroom teachers are empowered to conduct assessments in accord with the learning needs of their students. This allows for flexibility in the classroom, and more room for the support of students' autonomy and competence needs. There is a strong value for active inquiry, and positive experiences in school including a deep interest in learning. Finland stands out as one of the few countries demonstrating the capacity to achieve both high reading performance and high life satisfaction (Ahonen, 2021). From an equity perspective, Finland also has shown smaller gaps in learning outcomes between low and high socio-economic status compared to the OECD average (Ahonen, 2021; Salmela-Aro et al., 2008).

SDT-Grounded Research, Dissemination, and Application

In many ways the Finnish system, while not based specifically in SDT, embraces many of the theory's tenets, values and principles. For example, Schneider et al. (2020) evaluated an autonomy-supportive intervention, finding that teachers already reported high levels of autonomy support and low levels of controlling behaviors at baseline. This suggested that autonomy-supportive teaching strategies are already embedded in teacher training programs or integrated into the curriculum in Finland.

Several Finnish studies have also confirmed the role of basic psychological need satisfaction in fostering autonomous motivation and enjoyment in class (Gråstén et al., 2021; Huhtiniemi et al., 2019). However much of this SDT research has focused on physical education and further work is needed to enhance the generalizability of these findings across other teaching contexts. SDT research in Finland also extends to teachers and school leaders. For example, the basic psychological need satisfaction of school principals is linked to greater work engagement and lower burnout, whereas need frustration correlates with lower engagement and higher burnout (Toyama et al., 2022). Such research is utilized by the Finnish Association of Principals to inform and support the practices and well-being of school leaders. Thus, the Finnish education system not only promotes staff autonomy through its cultural frameworks and policies but also prioritizes the well-being and work engagement of teachers and school staff.

United States

Broader Educational Context

Education in the United States is difficult to characterize because policies can differ across the nations' fifty states and moreover are in a moment of rapid policy change. In recent decades federal education policies have carried some influence, largely through contingent funding schemes with names like "No Child Left Behind" and "Race to the Top" that have led many states to resemble one another in having prescribed curricula and standardized tests to assess them by which schools and their administrators are evaluated. In addition, whereas at one time public schools dominated U.S. education, today charter and private schools compete for public funds, a trend likely to increase. Private schools can vary in climate, but many orient toward more student-centered, and SDT-consistent practices. For example, the U.S. has the highest participation in Montessori schools across countries (Debs, 2023), and organizations such as *Heart of Character* have been teaching self-determination theory and implementing SDT practices in K-12 schools via professional development sessions, with documented success (e.g., Streight, 2019, 2025). In this landscape of alternatives, we note that access to private schools is often limited for students in lower economic circumstances.

Despite this complexity, a few common themes relevant to SDT cut across U.S. school districts. One theme concerns the predominant aim of most state-based policies, which is to enhance achievement presumed to be linked to human capital formation. There is thus a focus on curricula and testing for STEM and other societally emphasized subject matters, putting pressure on schools to focus on these areas often to the exclusion of topics such as arts, music (see Hursh, 2008). Most states build their education policies toward curricula reflected in high-stakes tests, and local school systems and leaders are often judged by these standardized test outcomes. This means that public education remains primally driven by top-down decisions and remains teacher-centered and focused on knowledge transmission—on contents that will be tested (Koretz, 2017). From an SDT standpoint such "outcome focused" policies typically backfire, constraining curricula, limiting teacher autonomy and flexibility, and decreasing both teacher and students' satisfaction and engagement (Ryan & Brown, 2005). Indeed, a major reason teachers leave the profession within their first few years is low autonomy (Davis, 2024; Fradkin-Hayslip, 2021).

SDT-Grounded Research,Dissemination, and Application

Much of the original research on SDT in classrooms (e.g., see Deci et al., 1981; Grolnick & Ryan, 1987) was based in the U.S. and Canada, and there are dozens of studies attesting to its applicability to North American schools, a literature too large to review here (see Ryan et al., 2022). In a recent survey of teachers across the U.S., Patall et al. (2024) reported that teachers regularly used eight strategies associated with need support and that that these need supportive strategies predicted engagement across settings. However, there was considerable variation across in the use of these practices across grades, with psychological need support higher in elementary compared to middle and high schools, which helps explain the related differences in engagement between these grade levels. Yet, to date SDT research has had limited influence on U.S. policy makers at federal or state levels. In part this reflects a culture built around competition and achievement, with policy makers focused on test results as primary goals rather than students' optimal development (Curren et al., 2024). Obstacles here include strong influential lobbies in favor of test-focused curricula, and lack of local school and teacher autonomy within the public systems.

Discussion

Education is a societal responsibility around the globe. There may be few aims shared by all the world's people, but one emerging consensus is that schools should be environments that help all students flourish—to learn adaptive skills, to grow, and to be well (Arthur et al., 2025; Curren et al., 2024). In this view, although systems and educators may have specific content or skill aims, they should also help enable and enhance students' thriving and wellness.

One of the central values of SDT within educational discourse is that it posits universal needs, the satisfaction of which is essential to learner flourishing. Insofar as the flourishing of students is seen as the goal of education, evaluating educational systems, schools, and classroom leaders in terms of their role in meeting or thwarting these needs then becomes a universal focus. SDT has generated a considerable body of evidence showing that, across cultural contexts and levels of schooling, meeting basic psychological needs for autonomy, competence, and relatedness in the classroom is central to student wellness, and contributes to higher-quality engagement and performance. This is so even as SDT's "universality without uniformity" framework acknowledges cultural variations in both expressions of need satisfaction, and pathways to how they are fulfilled or thwarted (Soenens et al., 2015). Need satisfaction can be supported via multiple strategies, and these supports can be communicated in culturally appropriate tones. Yet across countries, when teachers have received training in autonomy and basic need support, evidence suggests their students' wellness, engagement, and performance is enhanced, while at the same time their own teaching experience is improved. In addition, where school leadership supports teacher autonomy, teachers tend to be more need supportive of students, with benefits to both (Reeve et al., 2022; Slemp et al., 2020).

In this contribution our main aim has been to explore an additional source of variance in need supports, namely nation-to-nation differences in the reception and implementation of SDT. Illuminated across our case examples were different sources of variability, including sometimes formidable economic, societal, or cultural obstacles to need-supportive principles into classrooms. We summarize a few of these themes.

Flourishing or Performance? Tensions between Need Support and High Stakes Tests

Our review suggests that currently few national governments or ministries of education have made the support of students' basic psychological needs a central focus. We noted one common tension that may influence this "crowding out" of a focus on flourishing: An emphasis on high stakes testing. Accompanying this emphasis on specific test score outcomes is often a belief that high achievement requires pressuring and controlling conditions. This belief can lead policymakers, educators and parents to balk at concepts like autonomy or intrinsic motivation as if they may be distractions from achievement or leave students without "grit".

SDT's approach to motivation does not see achievement challenges in this way. In fact, the theory argues that psychological need support is a more effective and reliable pathway to high quality learning and performance than is pressure, evaluation, and control. In this view, building grit and determination for a subject matter means coming to value it and engage it seriously and these processes are better served via need-supports rather than external pressure and comparative evaluations. In fact, Cheon et al. (2024) demonstrated how training teachers to be more autonomy supportive was associated with a longitudinal increase in grit and mental toughness. We know of no compelling cognitive or motivational theory that supports the efficacy of controlling approaches, even as we observe how pervasive such beliefs are across the globe.

That said, creating autonomous motivation for learning depends not only on teacher styles, but also upon the authentic value of what is learned. Teachers need to have a rationale behind what they offer and be enthusiastic themselves for the subject matter. Insofar as curricula are built around what is to be tested instead of what is truly engaging to learners, then it becomes understandable why external pressure is seen as a needed motivator. Content can be delivered in autonomy and competence supportive ways, but it can be done even more supportively when the content has meaning and relevance to the learner. Allowing students more voice in what they must learn can help bridge that gap.

SDT is also not against evaluations and testing, because these can provide competence feedback for students, teachers, and systems under best use conditions. Rather, SDT has long distinguished between the *informational* versus *controlling* function of test scores and evaluations (Deci & Ryan, 1985). Informational evaluations are those that contribute to the recipients' knowledge and subsequent efficacy, whereas controlling evaluations pressure them toward specific outcomes. As generally practiced, grading and testing in schools is perceived as more controlling than informational. Moreover, grading is too often mistaken by educators as a motivation device, rather than a strategy for gatekeeping, which is its more proper function (see Ryan et al., 2023). Clearly such pressures to achieve external criteria can hinder high quality motivation even among high achievers, while leaving lower achievers to especially suffer educationally and personally. High disengagement and dropout seen in many countries are symptoms of systems not built to support basic psychological needs. In contrast, the goal of flourishing is about enhancing learning and wellness outcomes of all students, not just producing high test performance in specific cognitive domains, although this issue is currently a point of contention in countries like Finland, Belgium, South Korea and the U.S.A, among others.

Currently the basis of comparisons between schools and students in many nations tends to be high-stakes testing. But such outcomes are limited in scope and often reflect socioeconomic conditions and resources more than educational quality and well-being for all students (Korentz, 2017). Minimally, putting basic needs into policy focus can supplement such information, and has direct implications for practical change. At the policy level, testing policies have had an oversized influence on curricula and teaching world-wide, as the focus of educators is narrowed to what is tested rather than what benefits individual student flourishing.

Some have suggested that the popularity of high stakes tests is that they offer outcomes that can be measured, and for which educators can be held accountable (Hursh, 2008). Assessing the motivational quality of schools is indeed a more difficult task. One help has been the development of very brief assessments for basic needs that have practical value for measurements at scale (see Martela & Ryan, 2024). Such brief scales can then be used for the development of a motivation monitor (e.g., see Vansteenkiste et al., 2024), which can track students' and teachers' basic needs, motivation, and teaching quality on a frequent basis. Such initiatives are underway in Belgium to provide teachers, schools and policy makers informational feedback, and criteria or targets for successful interventions.

Another common fear is that supporting student autonomy means providing them "choice" about what to learn, and in so doing they will avoid essentials and difficult subjects, which must be mandated. It should be clarified that SDT does not see autonomy support as necessarily contrary to mandates or required curricula. Mandated curricula can be taught in controlling ways or in autonomy supportive ways. Internalizing the value of something that may not be interesting, however, especially requires support for autonomy and competence. Providing structure and rationales in an autonomy-supportive way (e.g., using informational language, offering clear expectations, communicating value and meaning) when teaching mandated material can facilitate internalization and higher quality engagement (Jang et al., 2010). At the same time, with basic needs more front and center one could be designing schools to be places for flourishing. This would likely entail individualization of learning pathways, choice, relevance, active learning and responsive scaffolding as elements of such an education.

Economic Factors

Economic factors were also revealed as having a heavy hand in affecting teachers' capacities to support student needs. This is an often unacknowledged and certainly under-researched issue. As we saw in countries such as Iran, Türkiye, and Peru, where institutions can be lacking in staff, training, and basic sources, it can be harder to support basic needs. Large class sizes and fewer high-tech tools make more difficult a teacher's ability to build on individual interests and offer novel lesson plans. Lower parent education and literacy also can contribute to lower student engagement. Students from poorer backgrounds often face multiple challenges, such as lower access to learning resources (e.g., books, computers), less support at home, and greater exposure to stressful environments, all factors potentially affecting student engagement, autonomous motivation, and performance. Indeed, in their meta-analysis of cross-national data banks Howard and Slemp (2025) reported that less government spending on education is associated with greater reports by students of autonomy thwarting. Oppositely, recent research in SDT has identified how societal *capabilities*, including access to education, foster well-being through satisfying basic psychological needs for autonomy, competence and relatedness (e.g., Bradshaw et al., 2023). In this review we see that economic obstacles often deny such access thus represent blocks to human flourishing.

Advances in Need-Supportive Practices

Singapore and Belgium provided examples of countries where local research has directly influenced policy. In Singapore the work of MERL and in Belgium of researchers primarily at Ghent University have demonstrated the value of SDT classroom practices in local contexts. In turn this has helped policy makers lean into basic need-supportive programs. This suggests another important finding—that within-culture research is critical to influencing policy. Moreover, the progress in advancing need-supportive schools is advanced by rigorous measurement and well-researched interventions—as these are part of the tools needed to influence national policies as well as teacher training contents.

Limitations

There are important limitations to our exploration. First and foremost, our case examples by no means provide a representative map of global circumstances. There was, however, high variation in cultural types within the 10 cases included, suggesting that basic psychological needs supports have relevance, and can be supported, within quite different cultural orientations. Autonomy support means facilitating volition, value, and interest in learning, and this can be encouraged across varied cultural backdrops, educational levels, and subject matters. Still, a more systematic review of this topic is warranted to understand the pervasive conditions that influence flourishing within schools. Welcome would be a multilevel analysis with country as a level 2 predictor, documenting that there is meaningful variance in flourishing and academic performance at that level of analysis. We also note that many nations and regions were not covered at all, including nations from Africa, and the world's largest nation, India. Omitted too were many countries where SDT research and practices are very active such as China, Japan, Canada, and Great Britian. These limitations suggest a need for a more systematic review of the issues concerning influences of economics, culture and societal conditions on need supports in schools.

It is also worth adding that SDT interventions are typically applied within classrooms *as they exist*. If we were embracing the aim of flourishing more seriously, SDT would have many implications for school redesign (see Ryan et al., 2023). From the SDT view, all aspects of classroom strategies, organization, and curricular contents should be evaluated for their impact on basic psychological needs, which offer clear criteria for a comparative science.

Conclusions

There are many lessons to be drawn from our case studies, but we provide just some short takeaways we think educators, policy makers, and institutions can learn from these observations. For instance, in South Korea we learned that RCT's facilitating autonomy-supportive teaching are effective even within a high achievement pressure culture. In Singapore we saw that solid research can inform policy, and that collective values are not an obstacle to promoting autonomy. In Turkey observations suggested that frequent policy changes with a lack of resources and rationale can frustrate teacher autonomy. In Iran we saw that the traditional way of teaching with limited training and extensive focus on grades can result in high dropout, which interventions can reverse. In Peru research is pointing to how educational practices can be reformed despite wealth discrepancies. In Belgium we saw that tracking student mental health and supporting teachers' needs can blend to ensure both performance and well-being. The case of Russia shows how creating need-supportive classroom climates can be accomplished, but also that such practices have not yet been widely adopted. In Israel we see that even given divisions such as ethnic and religious subcultures and pervasive traumatic experiences, more supportive teachers can foster better outcomes. In Finland a strong emphasis on supporting teachers professionally, emotionally, and financially has a high return on investment. And finally, in the USA the strong focus on test outcomes can often crowd out good classroom practices and limit both teacher and student autonomy. These are just a few of the themes and observations of relevance to need supportive schooling, and policies focused on student flourishing.

When we consider the strong SDT-based evidence for the universal importance of need supports in education, most outstanding is how few countries have made this a policy focus. This is so despite the wide agreement among nations that flourishing should be the focus of educational institutions everywhere (a consensus with which we opened this inquiry), as well as findings from other research frameworks indicating that "values associated with autonomy, relatedness, and competence show a universal pattern of high importance" (Fischer & Schwartz, 2011, p. 1127). Blocking such policy changes is often a dominant focus on cognitive outcomes presumably related to human capital formation. For an example see Yu et al.'s (2018) detailed discussion of how the high-stakes testing system in China (Gaokao) may thwart basic psychological needs. Our view is that designing schools to be need-supportive will enhance learning and adaptation appropriate to the modern age, building not only core knowledge but also life skills, confidence, and social-emotional competencies (e.g., Collie & Ryan, 2025).

A meta-analytic finding recently reported by Howard and Slemp (2025) was that, across their global search of studies over the years 2000–2022, there appears to have been an increase in mean levels of autonomy support. The effect size of this increase was small, yet such results are, from an SDT perspective, encouraging. Yet, given the substantial variability in autonomy support both between and within nations, and between and within schools, there is clearly much work ahead to close the gap between evidence and educational policies. Our case studies suggested that important in this process will be collecting empirical results locally, and tailoring messaging and interventions to the cultural context, each of which presents its own unique economic, cultural, and societal challenges to supporting the basic psychological needs of its learners.

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