



Supporting Learners with Special Needs in Open, Distance, and Digital Education

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Abstract

Open, distance, and digital education (ODDE) is meant to provide unique educational opportunities for everyone, including learners with special needs. While promising flexible and accessible learning experiences for learners with special needs, ODDE may simultaneously result in the creation of certain barriers. Supporting learners with special needs in ODDE environments, therefore, becomes a critical task for all educational institutions. This chapter focuses on the challenges that learners with special needs encounter during their learning process in ODDE, as well as those mechanisms that can be used to support them in order to overcome these challenges, such as means of increasing accessibility,

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recognizing Universal Design for Learning principles, using assistive technologies, providing accommodations, and adaptations in terms of pedagogical, managerial, social, and technical support. The chapter suggests that ODDE is inclusive in nature and that it should therefore further focus on empathy and care-oriented pedagogies. ODDE, inspired by openness philosophy, envisions equity, equality, and justice for every learner, including learners with special needs.

Keywords

Learner support systems · Learners with special needs · Open and distance learning · Inclusive education · Accessibility · Universal design for Learning

Introduction

Open, distance, and digital education (ODDE) is an umbrella term that is rooted in interchangeably used educational models, such as open education, distance education, online education, or digital education. As a generic broad term, the letters in ODDE abbreviation highlight, respectively, different aspects of the term. For instance, open refers to ODDE's theoretical and philosophical characteristics; distance refers to ODDE's pedagogical characteristics; and digital refers to technological characteristics, which includes online and digital tools, services, or environments. Finally, education refers to teaching and learning informed by open, distance, and digital practices.

Emphasizing that ODDE is a “notion with pluralistic and inclusive connotations, and a stance that defends widening participation” (Zawacki-Richter et al., 2020, p. 321), ODDE has always possessed a heterogeneous learner body through its welcoming of non-traditional learners (Wedemeyer, 1981) through flexible ways of delivering education and technological affordances to facilitate teaching and learning by fostering participation (Stöter, Bullen, Zawacki-Richter, & von Prümmer, 2014). The emergence of open universities has played a pivotal role (Tait, 2008) in providing learning opportunities for learners who were previously excluded from or unable to access conventional education (Bozkurt & Zawacki-Richter, 2021). In addition to traditional learners, ODDE ensures that the back door (Wedemeyer, 1981) is kept open for non-traditional learners; these include disadvantaged learners, such as those disadvantaged as a result of gender, remoteness, wealth, disability, ethnicity, language, migration, displacement, incarceration, sexual orientation, gender identity and expression, religion, and other beliefs and attitudes (UNESCO, 2020, p. 6), as well as learners with special needs.

The term learners with special needs is generally used to refer to learners that experience difficulties in learning due to their cognitive, physical, or sensory impairment; chronic illnesses; or psychosocial issues to the extent that the learner in question may require assistance in regard to their learning process (Laamanen et al., 2021). On review of the literature, it can be observed that there are also

other commonly used terms that refer to learners who require special education, such as exceptional learners, learners with disabilities, learners with special educational needs and disabilities, disabled learners, and learners with disabling conditions (Kinash, Birt, & Judd, 2019; Kirk, Gallagher, Coleman, & Anastasiow, 2009; Laamanen et al., 2021; Repetto, Cavanaugh, Wayer, & Liu, 2010). Though there is diversity among those terms that define special needs, all these terms focus on a single purpose, which is that learners in these groups require learning practices to be modified according to their specific learning needs. In this chapter, the term learners with special needs is adopted because the focal point is the special needs of learners who require adaptations in their learning process in ODDE; however other terms will also be used and retained if they are deliberately used by those authors cited herein.

Learners with Special Needs in ODDE

When examining learners with special needs in a general sense, Reiser and Dempsey (2012) suggest four categories: visual involvement, auditory involvement, mobility involvement, and cognitive involvement. These four categories are the most commonly used when considering provision of support for learners with special needs in ODDE. Visual involvement includes any condition resulting in the loss of visual perception; auditory involvement includes both deaf and hard of hearing categories; mobility involvement refers to any difficulties experienced regarding the movement within the natural environment, such as arthritis, cerebral palsy, muscular dystrophy, multiple sclerosis, or traumatic brain injury; cognitive involvement includes learning disabilities, autism, traumatic brain injury, cerebral palsy, epilepsy, neurological impairments, and mental illness. Learners with special needs may experience one or more than one of these conditions, and therefore they may belong to one or more of these categories (Catalano, 2014). However, it is important to note that learners can also have temporary disabling conditions that belong to one or more of these groups, such as having a broken arm or leg or being pregnant.

According to the WHO statistics, 15% of the world's population experience disability in varying degrees and in different forms (WHO, 2011). As a result, an increase in the number of learners with special needs has been observed in all levels of education globally (Fichten et al., 2009; Kinash et al., 2019; Laamanen et al., 2021; Tesolin & Tsinakos, 2018). Repetto et al. (2010) indicate that learners with disabilities are at risk of dropping out of school due to certain reasons such as access problems, lack of support, inability to find a helpful person to connect with, fear of course failure, poor self-esteem, etc. In this sense, ODDE is considered to be a means of increasing access to equal opportunities in education, thereby eliminating the barriers of access emerging in face-to-face education (Jelfs & Richardson, 2010; Kinash, Crichton, & Kim-Rupnow, 2004).

ODDE not only offers learning opportunities in terms of spatial and temporal flexibility by allowing learners to study at their own pace, it also increases accessibility for those learners who would otherwise be unable to attend face-to-face classes (Fichten et al., 2009). Additionally, learners with special needs can experience the

advantage of increased accessibility through the use of assistive technologies and multimedia involving speech, text, and audiovisual materials (Crichton & Kinash, 2013; Erickson & Larwin, 2016). Accordingly, these learners may perform better in online courses than in face-to-face courses (Stewart, Mallery, & Choi, 2010). As noted by several other researchers, empirical evidence suggests that learners with disabilities increasingly prefer to participate in online courses at a higher rate than other learners and that they recognize the benefits of ODDE (Alamri & Tyler-Wood, 2017; Moisey & Hughes, 2008). For example, Fichten et al. (2009) identify benefits of online learning from the perspectives of learners with disabilities; the most common benefits were the availability of online course notes, the support and enrichment of the learning process, help in understanding course content, the ability to learn from home and to work at one's own pace, the availability of online course resources other than notes, help in regard to time management, the convenience of communicating with peers/professors, and availability of information at any place and time. When the achievement level of learners with special needs is examined in ODDE, it can be observed that this level may be lower than that of learners without experience of any disabling condition. In a study in which the researcher compared the outcomes of disabled and non-disabled learners who were enrolled in distance-learning courses at the Open University UK (OUUK), Richardson (2010) found that disabled learners had lower grades, lower pass rates, and poorer course completion rates than their peers. In parallel to this, Wolanin and Steele (2004) indicate that learners with disabilities often need more time than their non-disabled peers for academic tasks, resulting in learners with disabilities taking twice as long as their non-disabled peers to complete their degrees. Supporting these statements, a study conducted by Moisey (2004) at Athabasca University revealed that learners with disabilities had a completion rate of 45.9%, which was lower than the completion rate for learners without disabilities (52.5%). These findings may be due to those challenges that learners with special needs encounter in online learning environments.

Challenges Encountered by Learners with Special Needs in ODDE

Moore and Kearsley (2012) describe online courses as “both a boon and a bane to disabled learners” (p. 113). Despite their affordances, many online courses may create barriers to learners with special needs (Barnard-Brak & Sulak, 2010; Edmonds, 2004; Moore & Kearsley, 2012). In this chapter, these barriers are examined according to five themes (Tesolin & Tsinakos, 2018):

Internal and external stereotypes: Invisibility of disability, having negative attitudes about requesting accommodations, and having negative perceptions on the ability to succeed may constitute a barrier to success among learners with special needs in ODDE. Identifying learners with hidden disabilities (e.g., learning disabilities or health-related impairments) is more difficult than identifying learners with visible disabilities (e.g., visually impaired learners, physically impaired learners) if these learners do not inform their instructors of their disability (Tandy & Meacham, 2009).

The learner's type of disability (e.g., visible or invisible) is critical because, as claimed by Barnard-Brak and Sulak (2010), learners experiencing visible disabilities tend to have more positive attitudes toward requesting accommodations in the online versus face-to-face learning environment as compared with learners who experience hidden disabilities (e.g., learning disabilities or health-related impairment).

Lack of infrastructure: Inadequate technical and policy frameworks can lead to failure among learners with special needs in ODL. Burghstahler (2002) mentions the digital divide – which she calls it as second digital divide – that learners with special needs experience; even if they have ostensible access to computers and the Internet, they may not have the opportunity to actually access these tools due to the inaccessible design of electronic sources or online learning environments. Additionally, a lack of policy frameworks, regulations, and guidelines and inadequate implementation of existing frameworks may also hinder learners with special needs.

Inaccessible education platforms, websites, and resources: Fichten et al. (2009) note that inaccessibility of websites and learning management systems (LMS) may cause a problem in terms of access for learners with learning, visual, and neuromuscular disabilities, and this problem remains even when they use screen magnification, screen reading, or dictation software. Furthermore, Fichten et al. (2009) add that visually impaired learners may encounter difficulties using certain websites when employing screen-reading technologies; additionally, fixed font size of materials or online maps and images can create problems for visually impaired learners.

According to the study conducted by Massengale and Vasquez (2016), incompatible content with screen readers, so that these readers are unable to read such content; the use of JavaScript requiring learners to be able to use a mouse; content opening in pop-up windows; and problematic links to text and tables without headers were the top five challenges encountered by learners with special needs. Comparatively, Moisey and Hughes (2008) emphasize that keyboards can be difficult or impossible to use for learners with fine motor problems or conditions such as carpal tunnel syndrome; learners with hearing impairments or communication disorders (e.g., aphasia, severe stuttering) may be unable to participate in audio-conferences; learners who experience learning disabilities or reading-comprehension problems may experience difficulties in understanding text-based materials.

Lack of qualified educators/training: This theme involves educators' lack of knowledge of accessibility, training needs, lack of interaction, disconnection with peers and instructors, and poor course design. Fichten et al. (2009) claim that staff who are responsible for deploying e-learning generally do not examine academic software that has already been purchased in regard to its compatibility with adaptive software such as screen readers. Additionally, they mention poor use of e-learning by some of the professors as well as these professors' lack of knowledge of working with e-learning.

Lack of interaction and communication: Online discussions and communication in ODDE may be cognitively demanding; for example, participating in synchronous chats can be difficult for visually impaired or dyslexic learners as it requires them to read and respond quickly (Tandy & Meacham, 2009). Additionally, inadequate

communication with peers and instructors may constitute a barrier to success (Alamri & Tyler-Wood, 2017).

In sum, various strategies are needed to support learners with special needs, whose needs can vary according to their specific disabling condition and its corresponding severity (Barnard-Brak & Sulak, 2010; Edmonds, 2004). There may even be individual differences between learners who experience the same type of disabling condition (Griful-Freixenet, Struyven, Verstichele, & Andries, 2017). Therefore, it is crucial to provide different types of support according to the type and level of a disabling condition in order to enhance success in such a heterogeneous group of learners (Laamanen et al., 2021; Moisey, 2004).

Learner Support Systems in ODDE

Learner support in ODDE refers to all those activities that support learners' progress in their respective studies, which is considered as one of the key indicators of quality (Hall, 2003; Simpson, 2002). Spatial, temporal, and transactional distance between learners and instructors – which is underlined in the definition of distance education – can lead to challenges for learners when finding solutions to their problems during their learning process. Moore and Kearsley (2012) emphasize the direct relationship between learners' failure and dropping out of a program and the failure of the available learner support system. Therefore, establishing strong learner support systems plays a crucial role in learner motivation, engagement, and achievement in ODDE (Moore & Kearsley, 2012; Thorpe, 2002).

Services that support systems that are involved in an ODDE system typically involve “enquiry, admission and pre-study advisory services; tutoring; guidance and counselling services; assessment of prior learning and credit transfer; study and examination centers; residential schools; library services; individualized correspondence teaching; record keeping; information management, and other administrative systems; differentiated services for learners with special needs; materials which support the development of study skills, program planning or career development” (Tait, 2000, pp. 289–290). There are various classifications that examine support systems in the literature (Genç & Koçdar, 2020a). For example, Simpson (2012) classifies support services into two groups: those of academic and non-academic support. Support for cognitive issues related to a certain course or courses and instruction-related issues were considered under academic support, while affective and organizational aspects of learners' studies were considered under non-academic support. Berge (1995) categorized support needs into four groups: pedagogical, managerial, social, and technical. Services related to academic skills and course content can be listed under pedagogical support; services related to registration procedures, administrative acts, timetable, organization, evaluation, and procedural rules can be listed under managerial support; services related to improving human affairs, strengthening group dynamics, enhancing learner–learner or learner–instructor non-academic interaction, and minimizing the sense of isolation can be listed under the social support; and services related to the elimination of

software- and hardware-related problems encountered by distance learners can be listed under technical support. In sum, the intention behind all these activities is to support and facilitate the learning process.

Supporting Learners with Special Needs in ODDE

Support systems have a critical role in the achievement of learners with special needs (Altınay, Altınay, Ossianilsson, & Aydın, 2018). For example, according to the results of the study conducted by Moisey (2004), learners with special needs at Athabasca University who received a greater number of different types of support services were found to have more success in their respective courses. On a review of the literature, it can be observed that discussions concerning supporting learners with special needs in ODDE are generally undertaken through the concepts of accessibility, Universal Design for Learning (UDL), use of assistive technologies, and accommodations or adaptations provided by educational institutions.

Accessibility

The most commonly mentioned issues regarding accessibility in ODDE are web accessibility, LMS accessibility, and accessible course/learning design.

Web accessibility: The term “accessibility” is widely used in the context of web design (Cooper, 2014). The World Wide Web Consortium (W3C) is an international web standards organization, and its Web Accessibility Initiative (WAI) creates detailed guidelines. As is noted on the W3C website, web accessibility refers to “websites, tools, and technologies are designed and developed so that people with disabilities can use them”; in other words, they are able to “perceive, understand, navigate and interact with the web and contribute to the web” (W3C, 2021). In addition, implying that accessibility is a broad concept, W3C emphasizes that web accessibility also benefits individuals without disabilities, such as elderly people with changing abilities due to their age; people experiencing temporary disabilities, such as having a broken leg; or people having a slow Internet connection. The WAI has developed detailed guidelines on how to ensure web accessibility such as WCAG 2 or WCAG 3 standards, which are universally accepted and frequently used. Various tools exist that can be used for accessibility testing of websites like WAVE accessibility evaluation tool (Massengale & Vasquez, 2016) or DYNO Mapper.

LMS accessibility: Similar to web accessibility, LMS are also needed to provide accessible online courses. Most of the LMS companies or providers strive to consider accessibility issues. For example, Blackboard, Desire2Learn, Canvas, and Moodle are committed to providing accessible course platforms and utilize standards that ensure accessibility. Furthermore, there are accessibility tools that help identify accessibility issues in an online course; for example, the University of Central Florida’s Universal Design Online Content Inspection Tool (UDOIT) checks and

reports accessibility, while Blackboard Ally helps make digital course content more accessible through technical design solutions.

Accessible course/learning design: The concepts of web and LMS accessibility consider the problem of accessibility from a more technical perspective. However, accessibility is not merely a technical issue but also a matter of learning design (Cooper, 2014). A course website or an LMS might be accessible; however, if the course is designed without addressing accessibility issues, learners will nevertheless experience difficulties when using the course materials. Therefore, designing course materials in a manner that is accessible to all learners, including those in disabling conditions, is important in the online learning environments (Cooper, 2014; Kinash et al., 2004; Massengale & Vasquez, 2016). For example, when delivering the information, multimedia can be used; the information can be presented through a text and a video at the same time. Principles of UDL can help designing accessible courses and learning environments.

Universal Design for Learning

Having its roots in architectural design, UDL is a framework for increasing the accessibility of learning environments for all learners (Lever-Duffy & McDonald, 2011). UDL focuses on removing barriers from the early stages of instructional design processes, eliminating the need to undertake adaptations for diverse learners (Reiser & Dempsey, 2012). The Center for Applied Special Technology (CAST) has developed the UDL Guidelines suggesting the instruction to be designed to support multiple means of engagement, multiple means of representation, and multiple means of action and expression (UDL, 2021). Presenting learning materials in multiple formats, strategies for optimizing individual choices, and autonomy or the use of multiple media for communication potentially improve learning not only for learners with special needs but also for all learners. This is because individuals learn and engage with learning materials in different ways and use different strategies as part of the learning process, for example, ESL learners, who are able to utilize captions in a video and who have better comprehension regarding the relevant content, and those learners who are hard of hearing or who have learning disabilities. Similarly, learners who lack time due to their professional and familial commitments will be able to benefit from audio materials while commuting or travelling, thereby learning in a similar manner to those with visual impairments. The metaphor “electronic curb-cut” is used to refer to accessible online content; just as the slopes facilitating physical access from sidewalks to streets are designed for wheelchair users, they can also be used by pedestrians of all kinds, people carrying luggage, and cyclists (Kinash et al., 2019; Tandy & Meacham, 2009).

Assistive Technologies

Assistive technologies refer to devices and software used by people to overcome barriers presented by their disability (Reiser & Dempsey, 2012). Learners with

cognitive disabilities can benefit from optical character recognition software, word processing, and word prediction software, while learners who are deaf or hard of hearing will benefit from close captioning video phones, pocket talkers, and amplified phones (Lever-Duffy & McDonald, 2011; Reiser & Dempsey, 2012). Screen-reader software, text-to-speech software, screen-magnification software, dictation software, and refreshable Braille display can be used to support visually impaired learners (Reiser & Dempsey, 2012). Additionally, learners with mobility involvements will benefit from word prediction software, eye gaze software, voice recognition software, and mouth sticks (Kinash et al., 2019; Reiser & Dempsey, 2012). According to the study conducted by Fichten et al. (2009), the most commonly used software indicated by learners was software that improves writing quality, screen-reading software, scanning and optical character recognition software, and voice dictation software. Assistive technology facilitates access to websites, LMS, and content. In other words, these assistive technologies support learner–content and learner–interface interaction. However, the aforementioned software cannot be used effectively unless the website or LMS interface and the design of the course materials have been developed in accordance with the requirements of the software itself (Kinash et al., 2019). For example, it may not be possible to read certain older versions of PDF documents using a screen reader; therefore, it is important to provide a version of PDF that is compatible with screen readers in the course.

Accommodations or Adaptations Offered by ODDE Institutions

ODDE institutions by nature have a commitment to providing equal opportunities in education through the creation of open, flexible, and accessible learning environments for all learners. Accordingly, a growing number of learners with special needs are registering at ODDE institutions as they offer learning opportunities that are responsive to the various requirements of these learners (Hirose, 2014). Consequently, ODDE institutions place special emphasis on learners with special needs and reflect the underlying philosophies of ODDE in their regulations and guidelines. Furthermore, in most countries there exist national legislations that ensure that support systems are in place for learners with special needs (Hirose, 2014). ODDE institutions announce their regulations, standards, and guidelines on their respective websites (Anadolu University, 2021; Athabasca University, 2021; IGNOU, 2021; OUUK, 2021; UNED, 2021), and these institutions usually have specific support units for students with disabilities. Many ODDE institutions have an office that specifically serves learners with special needs, as is the case for Athabasca University, the OUUK, Anadolu University, Universitat Oberta de Catalunya (UOC), Universidad Nacional de Educación a Distancia (UNED), and Indira Gandhi National Open University (IGNOU), among others (Genç & Koçdar, 2020a). Learners usually inform their institutions about their special needs by presenting documentary evidence of their disabilities. ODDE institutions analyze learners' requests and determine the necessary adaptations to be offered. Consequently, they provide a wide variety of accommodations and adaptations for learners with special

needs, which can be examined according to Berge's (1995) four categories as pedagogical, managerial, social, and technical support. Various examples among the practices of some ODDE institutions are presented below in accordance with these categories.

Pedagogical support: Course and exam accommodations can be listed in this category. Course accommodations refer to those changes to the course that do not affect course content (Moisey, 2004). In this regard, alternative formats for course materials are presented. For example, learners with special needs can use course materials in various formats according to their particular needs, such as e-books in DAISY or ePub formats; course materials in MP3 format, PDF, or Word formats; and interactive videos (Cooper, 2014; Genç & Koçdar, 2020b; UOC, 2021). In addition, transcriptions of audio/video materials, subtitle and sign language support for audio/video contents, and descriptions for visual contents are often provided. Extended contract time is provided in some universities (Moisey, 2004). Academic advising, which includes services like giving tips for study techniques and strategies, is often offered (Genç & Koçdar, 2020b). Providing electronic exam papers; exam papers in Braille; a large-font size, colored or audio exam papers; extra time in exams; deferrals; break times; scribe and/or reader support during examinations; and question exemptions can be listed among exam accommodations (Cooper, 2014; Genç & Koçdar, 2020a; Hirose, 2014; Moisey, 2004). Depending on their specific needs, learners can take the exams in a separate room; are allowed to bring equipment, food and drink, and/or medicine; etc.; in the case of bedbound learners, they are allowed to take exams at home. Learners also have the opportunity to have support services in on-site library services, such as assistive technologies, accessible library websites for screen-reader users, Braille books and printouts, computers with screen-reader software, or audiobooks.

Managerial support: Financial aid for academic-related expenses or transportation, assistive technology scholarships, lending assistive technologies, discount in tuition fees, service priority for registration or other issues relating to study centers and learners' enrollment in courses, buildings with elevator and ramps, large classrooms for face-to-face activities, wheelchair-compatible desks, ergonomic chairs or footrests, and special parking spaces are among those managerial support services offered by educational institutions (Genç & Koçdar, 2020a; Kim-Rupnow, Dowrick, & Burke, 2001).

Social support: Social support is the least observed type of support in ODDE institutions. Organizing concerts or activities that learners with special needs perform, assigning advisers, giving tips concerning learners' well-being, providing free online resources, preparing brochures on staying mentally healthy and coping with anxiety, and encouraging learner-learner interaction through social media groups, forums, e-mails, phone, and face-to-face communication are some of the social support activities provided by ODDE institutions (Genç & Koçdar, 2020a; OUUK, 2021).

Technical support: Lending computers, technical equipment, and assistive technologies, providing access to websites and LMS conforming to the WCAG 2.0 or

other accessibility standards, providing information on the required level of computer use or recommendations about special hardware and software that might be needed, providing technical support for LMS use, and homework preparation and submission can be listed among technical support services.

The abovementioned pedagogical, managerial, social, and technical support services are just some examples from some of ODDE institutions; in this sense, it is important to note that those support systems of ODDE institutions that are mentioned herein, as well as those that could not be mentioned, may involve more services than those listed above. This is because ODDE institutions usually offer comprehensive and dynamic learner support systems for learners with special needs in connection with their commitment to providing open, flexible, accessible, and equal learning opportunities for all learners.

Further Remarks: Equity, Equality, and Justice

While the focus of this chapter was to discuss those challenges encountered by learners with special needs in ODDE, and to discuss support mechanisms in various dimensions – such as accessibility, UDL, assistive technologies, and pedagogical, managerial, social, and technical support – certain other issues remain, and these can also be taken into account in terms of learners with special needs. The authors of this chapter observed that the literature on learners with special needs mostly focuses on accessibility and support issues. However, considering that there is a gap in the literature, we would like to draw attention to some other issues which can be imported in terms of learners with special needs. According to Xiao (2021), “education is primarily about human beings, for human beings and by human beings” (p. 3), and such a notion requires that education is considered as extending beyond the educational process itself but as a practice for all and for everyone. Sharing the same vision, the United Nations (2015, 2021) introduced Sustainable Development Goals (SDGs); comprising 17 Goals, SDG4 (quality education) suggests ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. These are different from practices for learners’ special needs as SDG4 defines inclusive education in a broader perspective and targets a wide range of learners by emphasizing equity, equality, and justice in any educational process. Likewise, UNESCO’s (2021) Futures of Education initiative argues that we need to expand our understanding of the right to education and take actions to prevent inequality in education. Ossiannilsson (2021) notes that “there is room for improvement in the technical area, but most importantly, it is critical to recognize the social dimensions of learning and education” by enacting “resilient open education for all in the context of social justice, human rights, and democracy” (p. 16). That being said, social and affective dimensions should not be neglected, and our practices can be informed by empathy and care-oriented pedagogies. These thoughts and global initiatives imply that inclusive education is not limited to learners with special needs, but rather addresses a broader audience to ensure equity, equality, and justice.

Conclusion

As introduced at the beginning of this chapter, ODDE offers a back door to education to those with and without special needs. By default, ODDE assumes that all learners are special but that learners with special needs require more attention. For learners with special needs, in addition to keeping the back door open for access to educational spaces, there is a further need to design the nature and contents of these spaces. These efforts range on a wide spectrum. For instance, at a nationwide macro-level, there is a need for guidelines, frameworks, and regulations that ensure that these learners are not left behind and that their participation is warranted assuming the learners are willing to enter educational spaces from either the front or the back door. At an institutional meso-level, and in addition to improving learning spaces and contents accessible, it must be ensured that learning support systems are available, that instructional design processes are guided by necessary requirements, and that adaptive technologies are used for learners with special needs. More importantly, at an individual micro-level, we need to show empathy and care for learners with special needs.

Another significant point is that support mechanisms should not only be provided during the educational processes but should be warranted before and after the educational process in order to ensure a completely inclusive education system. In this book chapter, most of the affordances reported covered practices that were implemented during the educational process. However, these practices can target before and after the educational processes. For instance, higher education institutions can provide guidance and counselling services before learners enroll in a program. Informing and guiding learners in advance about the scope of programs can be very helpful in aiding them to make the right decisions. Practices that are subsequent to the educational process can focus on career opportunities.

In sum, the core values and principles of ODDE support inclusiveness for learners with special needs and, indeed, for everyone. We have to center our arguments and practices around empathy and care-oriented pedagogies and think beyond accessibility and support issues. Such a stance will push all stakeholders in educational processes to design learning processes in a manner to welcome everyone by keeping front and back doors and ensure and enable equity, equality, and justice for every learner, including learners with special needs.

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