Magis Instructional Design Model for Transformative Teaching

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Abstract

The Magis Instructional Design Model endeavors to transform teaching online through the lens of critical pedagogy to place the human in a real-world context as much as possible through learning experiences and reflection. The goal being transformative learning experiences instead of transmissive ones that use the antiquated banking model of education. The model includes instructional strategies from the cognitive and affective domains. The Author asks for input and feedback on this model.

Introduction

As an instructional designer, I seek to provide course design guidance that is inclusive and just to overcome environmental barriers through a humanistic approach. The Magis Instructional Design Model endeavors to transform teaching online through the lens of critical pedagogy (e.g., Ignatian pedagogy, Freirean praxis, justice education) to place the human in a real-world context as much as possible through learning experiences and reflection. The goal being transformative learning experiences instead of transmissive ones that use the antiquated banking model of education where the teacher deposits knowledge for the student to withdraw (Bradshaw, 2017). The design for transformative distance education (DE) includes (a) instructional strategies from the cognitive and affective domains, (b) planned interactions for cognitive, social, and teaching presences to engender a community of inquiry (COI), and (c) the universal design for learning (UDL) to meet the needs of all learners.

This model is called Magis because it means more or greater, which refers to Saint Ignatius’ recognition that the deepest reality of the world, and of each individual, flows out of the infinite mystery of God (Traub, 2010). Magis is used in connection with another Latin term, ad majorem Dei gloriam, which means ‘to the greater glory of God’ (Traub, 2010). In this sense, magis means doing more for God’s project for the world and each person. Therefore, Magis is a fitting name for this ID model that embeds the transformational ideas of Saint Ignatius (i.e., Ignatian pedagogy) in concert with other critical pedagogies.

Ignatian pedagogy focuses on teaching to the whole person through context, experience, reflection, action, and evaluation (Kolvenbach, 1987; Korth, 1993). These principles are based on the work of Ignatius’s Spiritual Exercises, which serve as a guide to enhance one’s vocational discernment (Modras, 2008). Albeit steeped in religious overtones, the Magis model can be used for secular ID purposes. For example, Jesuits focus on social justice issues and aid the marginalized in their teachings as part of the Society of Jesus. Critical pedagogies also share this mantra but in a secular approach.

Model Overview

An ID model is an iterative process that analyzes and then synthesizes the variables affecting the learner, learning context, content to be taught, & application of the information (Dick & Carey, 2009). The purpose of this model is to align instruction with critical pedagogy for the adoption of transformative (democratic) teaching and learning to avoid transmissive (authoritarian) education. It is outcome-referenced and conditions-based. The outcomes address the Jesuit and Catholic mission to transform learners into caring leaders who seek truth, appreciate the beauty of life and God’s love, and promote human solidarity (Fr. Lucey, 2015). This formation is lifelong, as the distal outcomes of a Jesuit-based education. The conditions include the cura personalis of Jesuit education to engage students holistically, through the formation of their mind, body, and spirit. These are the conditions for Ignatian pedagogy and, to a broader extent, the proximal outcomes of transformational teaching to meet the needs of all learners.

Rationale. The ID process can reflect ethical considerations as input (Moore & Ellsworth, 2014). Educating the whole person is an ethical issue. Recognizing students as humans is something we intuitively do in traditional face-to-face classrooms, but sometimes this is lost in DE. For example, if e-learning is only a text-based
independent study, then we’ve silenced our students and treated them as mutes. The U.S. Office of Education (2010) conducted a meta-analysis of 99 e-learning studies and found larger effect sizes for studies that included collaborative or teacher-directed learning activities than those with independent study. Thus, independent online coursework is not always as effective as interactive online courses. The alternative, a transmissive education of information dumping, is unethical. Freire (1970) called it a corpse of knowledge.

**Utility.** The Magis model is designed for hybrid and fully online DE. It is a micro-level model that integrates critical pedagogy through a systemic approach. Micro-level models address instruction at the course level (not the program level) and are considered an adaptive instructional format (Lee & Park, 2008). Adaptive instruction provides differentiated learning per the learners’ needs and abilities. It does not need to be technology-based. Adaptation at the macro-level allows for a variance with instructional goals, depth of curriculum, and type of delivery. The Author decided to create a micro-level model instead of a macro-level programmatic one because of the spirit of creativity and individuality that educators have.

**Uniqueness.** This Magis model is unique in that it includes religion, spirituality, and social justice in addition to intellectual growth. It is inclusive of service to others. According to Dr. Timothy Carmody at Spring Hill College, Jesuit educators focus instructional activities on experiential learning to engender the cycle of experience leading to reflection and further action. This is based on the dynamics of Ignatius’ Spiritual Exercises.

**Limitations.** Initially, this model was designed for DE at Jesuit and Catholic institutions. In reflection, the Author realized the paradigm in which it belonged—critical pedagogies for all types of online educational programs. The challenge is a more inclusive model of the various critical pedagogies instead of the dominant Ignatian one. More research and practice are needed in addressing transformational teaching practices in DE.

**Theoretical Basis**

The Magis model is based on a multi-theoretical approach to the psychology of learning according to these paradigms: behaviorism, cognitivism, and constructivism. Learning is the acquisition of knowledge, skills, abilities, as well as the acculturation of values, attitudes, and emotional reactions (mindset). Regarding behaviorism, learning is determined from observations such as the completion of a new behavior/task, change in frequency/speed/intensity to said task, change in the complexity of a task, and responding differently to a particular stimulus (Ormrod, 2012). As for cognitivism, learning can be inferred from certain situations like avoidance of risky or unpleasant behaviors; it does not need to be explicitly observed (Ormrod, 2012). As for constructivism, learning is socially constructed by a student’s observation of others and co-constructed with their interactions with others (Ormrod, 2012). The Author considers constructivism to be a subset of cognitivism.

**Conditions of Learning**

The Magis model is influenced by Gagné’s (1985) work on the conditions of learning (internal and external), domains of learning (i.e., attitudinal, cognitive strategies, intellectual, psychomotor, or verbal), and the instructional approach known as the *nine events of instruction*. His work is based on a multi-theoretical learning paradigm. Conditions-based instructional theories address how and when to provide feedback, motivation, mastery learning, instructional sequencing, and learner strategies. Gagné, Briggs, and Wager (1992) worked to further define intellectual skills into a classification system in the following ascending order of difficulty: discrimination, tangible concepts, defined concepts, rule usage, and higher-order rules. This classification system is useful for the Magis model to design critical thinking interactions to empower students.

**Zone of Proximal Development (ZPD)**

Vygotsky’s (1978) proposed that learning takes place at the edge of one’s understanding with the help of others or a support system. This is known as the ZPD. This means that learning will not take place if the activity is too easy or too difficult. Csikszentmihalyi (1990) also described flow occurring for activities within a channel with just the right type of challenge to match a person’s skills. This channel exists somewhere between anxiety and boredom. Educators understand the need for differentiated instruction to meet each learner’s needs, but the reality of trying to make this happen in a traditional classroom of diverse learners is almost impossible to do all the time. This is where DE has an advantage over face-to-face instruction, as it provides more flexibility in content delivery, affordances for accommodations, modifications, and groupings. Hybrid formats can provide the best of both types of instructional environments.
Community of Inquiry

The Magis model incorporates instructional practices, instructional design, and technologies that support an online COI. The essential elements of a communication loop for an online COI include cognitive, social, and teaching presences (Garrison, Anderson, & Archer, 2000). This means that learners in an online environment are involved in cognitively challenging activities, can interact with their classmates, and that the teacher or student moderator is present in some way through words, voice, or person.

We need to bring the learner, the content, and the instructor together in an online community of inquiry for DE. Rogers and Van Haneghan (2016) created the Online Community of Inquiry Syllabus Rubric with criteria for consideration of an exemplary online COI. The rubric includes criteria for cognitive presence, technology tools for a COI, COI loop for social presence, support for learner characteristics, and instruction and feedback for teaching presence. The function of the rubric is to review the potentiality of an OCOI based on the course syllabus in the developmental phase. Its purpose is similar to Palmer and Caputo’s (2003) Universal Instructional Design model that has an implementation guide for instructors to reflect on the course structure and activities. Since the syllabus serves as a plan of action, this rubric serves as a tool during the analysis phase of the ID process to determine the strengths and weaknesses of an instructor’s plans for online ITs. The underlying theoretical premise is the more interactive and cognitively challenging the course, the higher the level of student satisfaction and course achievement. See Appendix A for the rubric.

Designing a COI loop of planned interactions will address teaching to the whole person. Bernard et al. (2009) conducted a meta-analysis of 74 online course interactions and found substantive research outcomes indicating the positive effect on learning when online educators build these types of interactions into their courses: student-student, student-teacher, and student-content. These interaction treatments were defined as the environments and not the actual behaviors that occur within them. Through the ID processes, one can design and develop these types of settings for DE. Table 1 displays the interrelationship of the main components of the model. Each component aligns to some extent with the mind, body, and spirit of cura personalis—the care of the entire person.

<table>
<thead>
<tr>
<th>Jesuit Education (Korth, 1993)</th>
<th>Mind</th>
<th>Body</th>
<th>Spirit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community of Inquiry (Garrison, Anderson, &amp; Archer, 2000)</td>
<td>Cognitive Presence</td>
<td>Social Presence</td>
<td>Teaching Presence (includes student-led moderation of tasks or peer evaluation)</td>
</tr>
<tr>
<td>Evidence-Based Educational Research (Bernard et al., 2009)</td>
<td>Student-content interactions</td>
<td>Student-student interactions</td>
<td>Student-teacher interactions</td>
</tr>
<tr>
<td>Critical Pedagogy (Hooks, 1994)</td>
<td>Active, authentic, &amp; intentional</td>
<td>Cooperative &amp; constructive ethical engagement</td>
<td>Humanistic “locations of possibility”</td>
</tr>
</tbody>
</table>

One of the non-educational influences for this model is Csikszentmihalyi’s (1990) flow theory. For the Magis model, the Author is interested in how it motivates one to a higher level of performance. Flow theory has eight main components that engender enjoyment: manageable tasks, deep concentration, clear goals, immediate feedback, effortless involvement, learner autonomy, the metamorphosis of self, and suspension of time (Csikszentmihalyi, 1990). Aspects of flow theory relate to the vocational discernment that Jesuit educators want their students to contemplate to achieve an elevated state in the work that they do in service to others. Designing instruction to engender flow can provide a more fulfilling learning experience, which is the impetus for the Author’s model.

Main Principles

The Magis model is a combination of learner-centered, experience-centered, activity-centered, and content-centered to address the whole person in online courses and for the UDL. Ragan, Smith, and Curda (2008) stated that a combination ID model is possible. Not only is it possible to include research-based best practices, but it is also necessary to provide diverse and vibrant experiences in online environments. Otherwise, a single-mode of learning
will become monotonous and decrease student motivation to learn. The UDL promotes multiple means of action, engagement, and representation to address the needs of all learners (CAST, 2011).

The Magis model has iterative ID phases of analysis, design, development, implementation, and evaluation. Each phase (re)occurs at any time, as in concurrent design approaches. For example, the evaluation phase includes both formative and summative evaluations. Formative evaluations arise at every stage and include feedback obtained from key players, which informs the subsequent design and assessment decisions (Dick & Carey, 2009). Formative assessments include the use of prototypes (paper, web, or conceptually-based) and single or group feedback. Furthermore, concurrent design relies on constant interaction between the instructional designer, course developer, and instructor (Davidson-Shivers & Rasmussen, 2006). Table 2 displays the inputs and outputs of the Magis model.

<table>
<thead>
<tr>
<th>ID Phases</th>
<th>Procedures</th>
<th>Actions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Analyze learner, learning environment, and content, as well as the instructors’ ability to teach in an online format with the current learning management system.</td>
<td>Conduct a needs assessment of instructor skills and attitudes toward online environments and technology. Review existing syllabus, course goals, and objectives with the Online Community of Inquiry Syllabus Rubric©. Observe classes if possible. Obtain student input about their knowledge, skills, abilities, and other interests (KSAOs).</td>
<td>Instructional designer addresses the needs of the instructor and students by tapping into their prior KSAOs. Instructional designer identifies areas to maximize the potential to engender an online COI to establish relationships of mutual respect.</td>
</tr>
<tr>
<td>Design</td>
<td>Develop inclusive course goals and unit objectives. Create assessments for content that align with course goals and student learning outcomes. Select wholistic instructional strategies to match objectives.</td>
<td>Review existing assessments and material; create measurable objectives at the unit level; design rubrics, tests, and alternative assessments based on criteria. Scaffold cognitively challenging assignments for formative assessments and feedback loop. Select action verbs to engage higher-order thinking skills for assignments.</td>
<td>Course designers optimize the course to address the whole learner. Instructor will be able to measure students’ learning. Students can achieve course goals with aligned content and appropriate tasks.</td>
</tr>
<tr>
<td>Development</td>
<td>Develop an online course with participatory practices. Embed useful learner strategies into the content to include questioning and reflection techniques.</td>
<td>Add content, threaded discussions, assignments, quizzes, resources, related images; Develop multimedia presentations. Meet with a librarian to discuss bibliographic instruction for your online students and useful resources. Use Gagné’s nine events of instruction when planning lessons. Select online cognitive activities to teach the whole person and engender an OCOI.</td>
<td>Course developers complete a beta version of course for quality review. Students will be able to not only be able to learn but reflect on their learning and challenge the status quo.</td>
</tr>
<tr>
<td>Implementation</td>
<td>Pilot-test course, attend to issues, then add students.</td>
<td>Fake students (colleagues) are added to pilot-test course. Create course announcements, send introductory class email, establish online office hours, and develop a matrix of students to monitor interactions. Provide list of student and teacher expectations for e-learning to promote course interactions. Poll students on prior knowledge of course topic.</td>
<td>The course is well-prepared. Students know course expectations. Students assimilate new information through active learning.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Address quality assurance measures for online instruction and accessibility</td>
<td>Informal quality assurance review of online course; survey students on course design; address immediate issues and develop list of</td>
<td>Student achievement and satisfaction increase.</td>
</tr>
</tbody>
</table>
needs at every phase in the ID process. This is part of a continuous improvement cycle to address students’ needs. Students successfully apply inquiry skills in real world contexts based on classroom participatory practices.

The model’s instructional design begins with the analysis phase of the human learning experience that includes student input. The design and development phases are steeped in the COI and UDL frameworks and participatory practices of critical pedagogies. For example, through questioning and reflections beyond self-interest, learners can become contemplatives in action. The implementation of the course includes introductory activities to tap into the learners’ prior knowledge (including misunderstandings) and experience. Prior knowledge along with learners’ belief systems and environmental barriers affect learning (Ormrod, 2012; Bransford, Brown & Cocking, 1999). Environmental barriers to learning include economic, physical, political, linguistic, ethnocultural, and social (e.g., gender bias). These barriers are important issues for social justice. Figure 1 relies heavily on Ignatian pedagogical layers to develop learners into caring leaders. It serves as the framework for the Magis model.

![Magis Instructional Design Model Framework for Distance Education](image)

**Figure 1.** Magis Instructional Design Model Framework for Distance Education

**Instructional Strategy Selection**

Table 3 provides instructional strategies for DE that engender higher-order thinking for four different approaches to provide cognitive presence. This chart serves as a job aid for strategy selection during the design phase. This selection depends on various affordances and constraints such as time and resources. For example, an activity-centered lesson is based on an interactive task and requires collaborative tools and student groupings. Content-centered lessons are passive tasks where the student generally only interacts with the content—the exception being discussions of content. Experience-centered activities require a hands-on approach to developing something or serving/working with others. The learner-centered activity provides the learner with more autonomy over their pursuit of knowledge and includes metacognitive actions for self-regulation of learning; the affordances and constraints for this type of activity are highly dependent on the task. Providing a myriad of instructional strategies will lead to transformational teaching through inclusiveness and participatory practices.
Table 3. Cognitive Online Instructional Strategies to Teach to the Whole Person

<table>
<thead>
<tr>
<th>Activity-Centered</th>
<th>Content-Centered</th>
<th>Experience-Centered</th>
<th>Learner-Centered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of case studies</td>
<td>Pretest/Posttest</td>
<td>Develop questionnaires</td>
<td>Peer-review of papers or projects</td>
</tr>
<tr>
<td>Critically review an article</td>
<td>Write a literature review</td>
<td>Develop a personal model of topic</td>
<td>Students create m/c questions for review</td>
</tr>
<tr>
<td>HyperInquiry team project</td>
<td>Complete modules on a topic in computer-adapted lab/program</td>
<td>Participate in a simulation</td>
<td>Design a project</td>
</tr>
<tr>
<td>Academic controversy assignment</td>
<td>Write an essay</td>
<td>Develop a workshop</td>
<td>Evaluate a program</td>
</tr>
<tr>
<td>Develop a book trailer on topic</td>
<td>Make a presentation</td>
<td>Develop a wiki on a topic</td>
<td>Write an autobiography of your interaction with topic</td>
</tr>
<tr>
<td>WebQuest</td>
<td>Discuss content with peers and instructor</td>
<td>Develop a podcast or narrated PowerPoint on a topic</td>
<td>Complete self-evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop a how-to guide on procedure</td>
<td>Develop a personal learning network</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Write a blog post on a topic</td>
<td>Capture reflections in journal, audio, or video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serve others as a mentor, tutor, or volunteer on topic</td>
<td>Curate digital books and articles on topic for lifelong learning</td>
</tr>
</tbody>
</table>

Influential Instructional Design Models

**First-Principles.** Gagné’s (1985) conditions-based theory was based on the need to align the various types of learning with instructional events, as were Merrill’s (2009) First-Principles of instruction. Merrill’s principles included the following cyclical instructional phases: task-centered, activation, demonstration, application, and integration. At its core was the task-centered approach based on a realistic problem. This aligns with the Ignatian pedagogical principles of context, experience, and action but does not include reflection.

**4C/ID.** Van Merriënboer and de Croock’s (2002) Four-Component ID (4C/ID) model was for the micro-level design of learning of complex tasks. It was a holistic approach, like Ignatian pedagogy, that used authentic tasks to learn skills and knowledge in an integrated approach instead of piecemeal. The four components consisted of several steps: learning tasks (i.e., design and sequence tasks, set performance objectives), supportive information (i.e., design support information, analyze cognitive strategies and mental models), procedural information (i.e., design procedures, analyze cognitive rules and prerequisite knowledge), and part-task practice (i.e., design part-task practice). The task-specific focus was organized by level of performance difficulty. This model addressed learners’ issues before they become frustrated, which is an essential element in teaching to the whole person. Ignatian pedagogy strives to teach to the whole person.

**UID.** Palmer and Caputo (2003) proposed the following seven principles for universal instructional design (UID): accessibility, consistency, explicitness, flexibility, accommodating learning spaces, minimization of effort, and supportive learning environments. Universal design (UID) refers to the consideration of the needs of persons with disabilities regarding physical spaces and objects. UID recognized those needs for course design. Its premise was equal access to education and extends this to all types of learners and not just those with disabilities. The UID model addressed the needs of the whole learner akin to Ignatian pedagogy. It included an explicit implementation guide for educators to reflect on the current course situation and act on their identification of course weaknesses regarding UID. Reflection and evaluation are essential principles for critical pedagogies.

Summary

The Author is grateful to the Jesuits at Spring Hill College for their input. Additionally, my acknowledgment of my instructor, Gayle V. Davidson-Shivers, Ph.D., for her support and feedback in the development of this model. In summary, the user of the Magis ID model will analyze human learning experiences during the analysis phase. During the design and development phase, users will consider the parameters of mutual respect in an online learning environment between T-S, S-S, and S-C in the context of humility, openness, positive
attitude, and reverence. Part of that respect includes tapping into the students’ prior knowledge and experience through questioning during the implementation phase. Users will design for the assimilation of new information for complete understanding using activities that engender higher-order thinking skills and the transfer of learning into everyday interactions. Additionally, it asks the user to include instructional components for lifelong habits and reflections beyond self-interest. The framework is inclusive of the mind, body, spirit in terms of a COI and other transformational research-based practices for the implementation of a more humanistic online education.

References


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<table>
<thead>
<tr>
<th>Scale</th>
<th>Exemplary (5 points)</th>
<th>Above Average (4 points)</th>
<th>Moderate (3 points)</th>
<th>Basic (2 points)</th>
<th>Low (1 point)</th>
<th>Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructional Design for Cognitive Presence</strong></td>
<td>Instructional design offers extensive cognitive activities such as exploration, integration, resolution, &amp; triggering events (analysis, synthesis, or evaluation).</td>
<td>Instructional design offers ample cognitive activities such as exploration, integration, and resolution (applying new ideas). This is at the application level of inquiry.</td>
<td>Instructional design offers adequate cognitive activities such as exploration and integration (connecting ideas). This is at the comprehension level of inquiry.</td>
<td>Instructional design offers minimal cognitive activities such as exploration (exchange of ideas). This is at the knowledge level of inquiry.</td>
<td>Instructional design offers limited cognitive activities (e.g., no exchange of ideas) for interaction treatments.</td>
<td></td>
</tr>
<tr>
<td>Educational Technology for COI</td>
<td>Technology could extensively facilitate a COI (e.g., email, assignment, forum, multimedia project, sharing tool &amp; synchronous meeting tool for group work).</td>
<td>Technology could adequately facilitates a COI (e.g., email, assignment tool, a forum tool). Multimedia is used to obtain peer feedback or group collaboration.</td>
<td>Technology could minimally facilitate a COI with T-S and S-S interactions (e.g., email, assignment tool, &amp; a forum tool).</td>
<td>Limited technology provided to facilitate a COI. For example, email and/or assignment tool for T-S interactions only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COI Loop for Social Presence</td>
<td>Open communication actions provide for extensive S-T, S-S &amp; T-P-P interactions and opportunities for student-led moderation of forums. Collaboration is required to build group cohesion and a rubric is provided.</td>
<td>Open communication actions provide for ample S-T and S-S interactions and opportunities for student-led moderation of forums. Collaboration is required to build group cohesion and a rubric or guidelines are provided.</td>
<td>Open communication actions provide for adequate S-T and S-S interactions to discuss content. Collaboration is encouraged to build group cohesion through words, a point-system, or by example.</td>
<td>Open communication actions provide for minimum S-T and S-S interactions such as a forum for questions/answers and/or watercooler socializing.</td>
<td>Communication actions are limited to S-T interactions only such as email. No open communication planned.</td>
<td></td>
</tr>
<tr>
<td>Support for Learner Characteristics</td>
<td>Extensive learner support and available resources are identified (e.g., disability services, remedial services, strategies/tips, &amp; scaffolding assignments).</td>
<td>Adequate learner support and available resources are identified (e.g., disability services &amp; remedial services or strategies).</td>
<td>Minimum learner support and available resources are identified (e.g., disability services or remedial services or strategies).</td>
<td>Learner support and available resources are not fully shared (e.g., no contact information).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction &amp; Feedback for Teaching Presence</td>
<td>Extensive information provided on instructor feedback format with prompt turnaround time. Multi-modal direct instruction is mentioned. Instructor offers virtual office hours, format, &amp; social media for classroom interactions.</td>
<td>Adequate information provided on instructor feedback format. Text-based direct instruction is mentioned (e.g., narrated slides, video tutorial, or digital program). Instructor offers virtual office hours and format.</td>
<td>Minimum information provided on instructor feedback format. No direct instruction mentioned. Instructor offers nonspecific virtual office hours.</td>
<td>Limited information provided on instructor feedback format. No direct instruction (focusing discussion) mentioned. Instructor does not offer virtual office hours.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:  
Total:  

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Online Community of Inquiry Syllabus Rubric  
Low potential for building an online COI: 1-9 points  
Moderate potential for building an online COI: 10-17 points  
High potential for building an online COI: 18-25 points.