

### Bloque III: Aspectos psicoeducativos de la deficiencia visual

7. La evaluación de la visión y los deficientes visuales
  8. La atención temprana y el papel de la familia
  9. **El acceso al currículum en los deficientes visuales**
  10. La lectoescritura en deficientes visuales: el sistema Braille
  11. Habilidades de orientación y movilidad y habilidades de la vida diaria
  12. Nuevas tecnologías en deficientes visuales: la tiflotecnología
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## GUÍA DE ESTUDIO DEL TEMA 9: EL ACCESO AL CURRÍCULUM EN LOS DEFICIENTES VISUALES

### OBJETIVOS Y COMPETENCIAS

1. Conocer las características propias de los procesos de aprendizaje de las personas con deficiencia visual.
2. Analizar las necesidades educativas de los alumnos con deficiencia visual en las distintas áreas del currículum.
3. Comprender las bases de la didáctica de las áreas del currículum con personas deficientes visuales.
4. Analizar las cualidades que ha de poseer el espacio de aula y centro para el correcto desenvolvimiento de los alumnos con deficiencia visual, así como planificar su gestión.
5. Conocer y elaborar materiales adaptados para alumnos con deficiencia visual.

### CONTENIDOS

1. Características de los procesos de aprendizaje en alumnos con deficiencia visual
  - a. Aspectos generales
    - i. Los canales de entrada de información
    - ii. La imitación como herramienta de aprendizaje
    - iii. Lentitud en los aprendizajes
    - iv. Falta de motivación
  - b. Aspectos específicos
    - i. Aprendizaje fragmentado y secuencial
    - ii. Falta de retroalimentación
    - iii. El aprendizaje sin referentes
      - (1) los verbalismos
  - c. El papel del profesorado

- i. Sobreprotección
  - ii. Bajo nivel de expectativas
  - iii. Lenguaje visuocéntrico
  - iv. Escasa formación
- 2. La organización de los elementos del currículum en la educación de personas con deficiencia visual
  - a. Los objetivos
  - b. Los contenidos
    - i. La inclusión de contenidos específicos
  - c. La metodología
  - d. La evaluación
- 3. La gestión del espacio escolar
  - a. La búsqueda de autonomía y seguridad
  - b. El acceso a las actividades del currículum
- 4. Materiales en la enseñanza a ciegos y deficientes visuales
  - a. Materiales comunes
  - b. Materiales comunes adaptados
  - c. Materiales específicos
- 5. El trabajo con deficientes visuales en las distintas áreas del currículum
  - a. Las áreas instrumentales
    - i. Lengua y literatura
    - ii. Matemáticas
  - b. Las otras áreas del currículum
    - i. Conocimiento del medio
    - ii. Lengua extranjera
    - iii. Educación artística
    - iv. Educación Física

## **LECTURAS BÁSICAS**

Álvarez Gámez, M.F. (1999). Acceso al currículo. Didáctica y adaptación en las áreas curriculares generales. En I. Martínez Liebana (coord.): *Aspectos evolutivos y educativos de la deficiencia visual (vol. II)*. Madrid: ONCE.

Esteban, E. (2000). Educación primaria y secundaria en alumnos con ceguera. En J. Checa Benito (dir.): *Psicopedagogía de la ceguera y deficiencia visual*. Valencia: Promolibro.

Miñambres Abad, A. (2004). Atención educativa al alumnado con dificultades de visión (págs. 69-91). Málaga: Aljibe.

Sedeño, A. (2000). Educación primaria y secundaria en alumnos con baja visión o visión límite. En J. Checa Benito (dir.): *Psicopedagogía de la ceguera y deficiencia visual*. Valencia: Promolibro.

## RECURSOS EN INTERNET

<http://www.arrakis.es/~caidv/>

<http://www.centrodedesarrollovisual.com/>

<http://www.pnte.cfnararra.es/creena/011visuales/MenuVisuales.htm>

<http://www.educastur.princast.es/eoep/eevovied/index.htm>

<http://integracionescolar.8m.com/index.htm>

<http://www.tsbvi.edu/Education/index.htm>

## ACTIVIDADES PARA FACILITAR EL ESTUDIO

1. Expón de forma esquemática las características generales de los procesos de aprendizaje presentes en las personas con deficiencia visual. Pon ejemplos de situaciones escolares donde estas características se pongan de manifiesto (consulta las lecturas propuestas en el tema).
2. Plantea cuáles deberían ser las características de un entorno escolar adecuado para un alumno con deficiencia visual.
3. Presenta ejemplos, dentro de las áreas del currículum que prefieras, donde se vea con claridad el uso de los distintos tipos de materiales adaptados (puedes buscar para ello en las lecturas del tema).
4. Analiza, de forma esquemática, las pautas de actuación educativa que se han de tomar con alumnos ciegos (sin resto de visión) en cada una de las áreas del currículum a lo largo de las distintas etapas educativas: infantil, primaria y secundaria (básate para hacerlo en los textos propuestos).
5. Repite la actividad anterior, pero, en este caso, atendiendo a las necesidades de los alumnos con deficiencia visual (con resto de visión).
6. Tras lo que has leído en los textos, ¿crees que podemos hablar de un único modelo de actuación educativa ante los alumnos con deficiencia visual o, por el contrario, podemos encontrar más de uno? Razona tu respuesta.
7. Construye un glosario con los términos más relevantes de este tema.

## CARTA DE DESPLIEGUE DEL TEMA

Objetivos	Contenidos	Actividades	Recursos preferentes
1	1	1, 7	Álvarez Gámez (1999) Esteban (2000) Miñambres Abad (2004) Sedeño (2000)
2	1, 2, 3, 4, 5	2, 4, 5, 6, 7	Álvarez Gámez (1999) Esteban (2000) Miñambres Abad (2004) Sedeño (2000)
3	2, 5	4, 5, 6, 7	Álvarez Gámez (1999) Esteban (2000) Miñambres Abad (2004) Sedeño (2000)
4	3	2, 7	Álvarez Gámez (1999) Esteban (2000) Miñambres Abad (2004) Sedeño (2000)
5	4, 5	3, 7	Álvarez Gámez (1999) Esteban (2000) Miñambres Abad (2004) Sedeño (2000)

## BIBLIOGRAFÍA COMPLEMENTARIA

Abner, G.H. y Lahm, E.A. (2002). Implementation of assistive technology with students who are visually impaired: Teachers' readiness. *Journal of Visual Impairment and Blindness*, 96, 98-105.

Ahlberg, A. y Csocsan, E. (1999). How children who are blind experience numbers. *Journal of Visual Impairment and Blindness*, 93, 549-560.

Algozzine, B. y Ysseldyke, J. (2006). *Teaching students with sensory disabilities: A practical guide for every teacher*. Thousand Oaks, CA: Corwin Press.

Amato, S. (2003). Braille goes to high school. *Journal of Visual Impairment and Blindness*, 97, 240-243.

Aoki, T.T. (2005). Toward Understanding Computer Application (1987/1999). En W.F. Pinar y R.L. Irwin (eds.): *Curriculum in a new key: The collected works of Ted T. Aoki*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Arditi, A. (2004). Adjustable typography: An approach to enhancing low vision text accessibility. *Ergonomics*, 47, 469-482.

Backman, O. (2000). Interactive factors in the reading rehabilitation of elderly persons with low vision in Sweden. *Journal of Visual Impairment and Blindness*, 94, 638-647.

Bahar, C., Brody, J., McCann, M.E., Mendiola, R. y Slott, G. (2003). A multidisciplinary approach to educating preschool children with optic nerve hypoplasia and septo-optic nerve dysplasia. *RE:view*, 35, 15-21.

Beumer, J.J., de Haan, A. y van der Ven, J. (2000). Implications of computer-mediated communication for people who are visually impaired in dealing with complex visualization tasks. *Journal of Visual Impairment and Blindness*, 94, 453-456.

Bledsoe, C.W. (2005). Credo ascribed to certain masters of the art of teaching blind people. *RE:view: Rehabilitation Education for Blindness and Visual Impairment*, 37, 6.

Bouaziz, S., Russier, S. y Magnan, A. (2005). The copying of complex geometric drawings by sighted and visually impaired children. *Journal of Visual Impairment and Blindness*, 99, 765-774.

Bouaziz, S., Russier, S. y Magnan, A. (2005). The Copying of Complex Geometric Drawings by Sighted and Visually Impaired Children. *Journal of Visual Impairment and Blindness*, 99, 765-774.

Brazier,-Mark; Parry,-Michelle; Fischbach,-Ephraim (2000). Blind students: Facing challenges in a college physics course. *Journal of College Science Teaching*, 30, 114-16.

Bruce, S.M. (2002). Impact of a communication intervention model on teachers' practice with children who are congenitally deaf-blind. *Journal of Visual Impairment and Blindness*, 97, 154-167.

Byerley, S.L. y Chambers, M.B. (2002). Accessibility and usability of web-based library databases for non-visual users. *Library Hi Tech*, 20, 169-178.

Cain, H.M. y Merrill, Z. (2001). Distance education for master's students with visual impairments: Technology and support. *Journal of Visual Impairment and Blindness*, 95, 572-575.

Chang, S.C.H. y Schaller, J. (2002). The views of students with visual impairments on the support the received from teachers. *Journal of Visual Impairment and Blindness*, 96, 558-575.

Corn, A.L., Wall, R.S., Jose, R.T., Bell, J.K., Wilcox, K. y Pérez, A. (2002). An initial study of reading and comprehension rates for students who received optical devices. *Journal of Visual Impairment and Blindness*, 96, 322-334.

Correa-Torres, S.M. y Howell, J. (2004). Facing the challenges of itinerant teaching: Perspectives and suggestions from the field. *Journal of Visual Impairment and Blindness*, 98, 420-433.

Coster, K. y Loots, G. (2004). Somewhere in between Touch and Vision: In Search of a Meaningful Art Education for Blind Individuals. *International Journal of Art and Design Education*, 23, 326-334.

Csocsan, E. (2002). A vak gyermekek szamfoglalomfejlodesevel kapcsolatos vizsgalatok es azok gyogypedagogiai konzekvenciai. *Erdelyi Pszichologiai Szemle*, 3, 29-46.

D'Angiulli, A. y Maggi, S. (2003). Development of drawing abilities in a distinct population: Depiction of perceptual principles by three children with congenital total blindness. *International Journal of Behavioral Development*, 27, 193-200.

Dahm, S.D. (2002). New territory? Rehabilitation teaching at a state school for the blind. *RE:view*, 34, 77-85.

DeMario, N.C. y Lian, M.G.J. (2000). Teachers' perceptions of need for and competency in transcribing braille materials in the Nemeth code. *Journal of Visual Impairment and Blindness*, 94, 7-14.

Dimigen, G., Roy, A.W.N., Horn, J. y Swan, M. (2001). Integration of visually impaired students into mainstream education: Two case studies. *Journal of Visual Impairment and Blindness*, 95, 161-164.

Downing, J.E. y Chen, D. (2003). Using tactile strategies with students who are blind and have severe disabilities. *TEACHING Exceptional Children*, 36, 56-60.

Gallo, P.G., Panza, M., Lantieri, P.B., Risso, D., Conforti, G., Lagonia, P., Piro, A., Tagarelli, G. y Tagarelli, A. (2003). Some psychological aspects of colour blindness at school: a field study in Calabria and Basilicata (Southern Italy). *Color Research and Application*, 28, 216-220.

Garb, E. (2000). Maximizing the potential of young adults with visual impairments: The metacognitive element. *Journal of Visual Impairment and Blindness*, 94, 574-583.

Ghesquiere, P., Laurijssen, J., Ruijssenaars, W. y Onghena, P. (1999). The significance of auditory study to university students who are blind. *Journal of Visual Impairment and Blindness*, 93, 40-45.

Gibson, W.E. y Darron, C. (1999). Teaching statistics to a student who is blind. *Teaching of Psychology*, 26, 130-131.

Gompel, M., van Bon, W.H.J. y Schreuder, R. (2004). Reading by Children with Low Vision. *Journal of Visual Impairment and Blindness*, 98, 77-89.

Gompel, M., Janssen, N.M., van Bon, W.H.J. y Schreuder, R. (2003). Visual input and orthographic knowledge in word reading of children with low vision. *Journal of Visual Impairment and Blindness*, 97, 273-284.

Gompel, M., van Bon, W.H.J., Schreuder, R. y Adriaansen, J.J.M. (2002). Reading and spelling competence of Dutch children with low vision. *Journal of Visual Impairment and Blindness*, 96, 435-447.

Goodrich, G.L., Kirby, J., Wagstaff, P., Oros, T. y McDevitt, B. (2004). A comparative study of reading performance with a head-mounted laser display and conventional low vision devices. *Journal of Visual Impairment and Blindness*, 98, 148-159.

Harley, R.K., Lawrence, G.A., Sanford, L. y Burnett, R. (2000). *Visual impairment in the schools*. Springfield, IL: Charles C. Thomas Publisher.

Hatwell,-Yvette; Martinez-Sarrochi,-Francoise (2003). The tactile reading of maps and drawings, and the access of blind people to works of art. En Y. Hatwell, A. Streri y E. Gentaz (eds.): *Touching for knowing: Cognitive psychology of haptic manual perception*. Amsterdam: John Benjamins Publishing Company.

Hensil, J. y Whittaker, S.G. (2000). Visual reading versus auditory reading by sighted persons and persons with low vision. *Journal of Visual Impairment and Blindness*, 94, 762-770.

Hodges, J.S. y Keller, M.J. (1999). Visually impaired students' perceptions of their social integration in college. *Journal of Visual Impairment and Blindness*, 93, 153-165.

Holbrook, M.C., Wadsworth, A. y Bartlett, M. (2003). Teachers' perceptions of using the Mountbatten Braille with young children. *Journal of Visual Impairment and Blindness*, 97, 646-654.

Howze, Y.S. (2000). The Missouri School for the Blind: a model of quality for school improvement. *Journal of Visual Impairment and Blindness*, 94, 261-266.

Hoz, R. y Alon, A. (2001). The tactics and knowledge representations used by blind students in learning from texts. *Journal of Visual Impairment and Blindness*, 95, 304-307.

Hull, J.M. (2004). Teaching as a trans-world activity. *Support for Learning*, 19, 103-106.

Jamieson, S. (2004). Creating an educational program for young children who are blind and who have autism. *RE:view: Rehabilitation Education for Blindness and Visual Impairment*, 35, 165.

Johnson, K., Griffin-Shirley, N. y Koenig, A.J. (2000). Active learning for children with visual impairments and additional disabilities. *Journal of Visual Impairment and Blindness*, 94, 584-594.

Kapperman, G., Sticken, J. y Heinze, T. (2002). Survey of the use of assistive technology by Illinois students who are visually impaired. *Journal of Visual Impairment and Blindness*, 96, 106-108.

Kapperman, G. y Sticken, J. (2003). A case for increased training in the Nemeth Code of braille mathematics for teachers of students who are visually impaired. *Journal of Visual Impairment and Blindness*, 97, 110-112.

Kapperman, G. y Sticken, J. (2002). A software tutorial for learning the Nemeth Code of braille mathematics. *Journal of Visual Impairment and Blindness*, 96, 855-857.

Kennedy, J.M. y Juricevic, I. (2006). Form, projection and pictures for the blind. En M.A. Heller y S. Ballesteros (eds.): *Touch and blindness: Psychology and neuroscience*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Kim Charlson (2005). Barrier buster: Perkins School for the Blind. *Library Journal*, 130, 34.

Kim, Y.I. y Corn, A.L. (1998). The effects of teachers' characteristics on placement recommendations for students with visual impairments. *Journal of Visual Impairment and Blindness*, 92, 491-502.

Kirchner, C. y Smith, B. (2005). Transition to what? Education and employment outcomes for visually impaired youths after high school. *Journal of Visual Impairment and Blindness*, 99, 499-504.

Krebs, C.S. (2000). Beyond blindfolds: Creating an inclusive classroom through collaboration. *RE:view*, 31, 180-186.

Landau, S., Russell, M., Gourgey, K. Erin, J.N. y Cowan, J. (2003). Use of the Talking Tactile Tablet in mathematics testing. *Journal of Visual Impairment and Blindness*, 97, 85-96.

Layton, C.A. y Lock, R.H. (2001). Determining learning disabilities in students with low vision. *Journal of Visual Impairment and Blindness*, 95, 288-299.

Levoy, B. (2003). Audio textbooks: An important tool for those with learning-related & low vision problems. *Journal of Behavioral Optometry*, 14, 121-122.

Levy, G. (2005). Seeing for ourselves: Producing accessible information for people learning difficulties and visual impairments. *British Journal of Learning Disabilities*, 33, 77-82.

Lieberman, L.J. y Houston-Wilson, C. (1999). Overcoming the barriers to including students with visual impairments and deaf-blindness in physical education. *RE:view*, 31, 129-138.

Lovie-Kitchin, J. y Whittaker, S. (1998). Relative-size magnification versus relative-distance magnification: Effect on the reading performance of adults with normal and low vision. *Journal of Visual Impairment and Blindness*, 92, 433-446.

McCall, S. y McLinden, M. (2001). Literacy and children who are blind and who have additional disabilities: The challenges for teachers and researchers. *International Journal of Disability, Development and Education*, 48, 355-375.

Mcdougall, S.W. (2002). Analysis of text rotation as an instructional strategy for increasing row-blind subjects' reading comprehension. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 63, 1712.

McGaha, C.G. y Farran, D.C. (2001). Interactions in an inclusive classroom: The effects of visual status and setting. *Journal of Visual Impairment and Blindness*, 95, 80-94.

Michalko, R. (2001). Blindness enters the classroom. *Disability and Society*, 16, 349-359.

Milian, M. y Pearson, V. (2005). Students with visual impairments in a dual-language program: A case study. *Journal of Visual Impairment and Blindness*, 99, 715-720.

Milian, M. (2001). Schools' efforts to involve Latino families of students with visual impairments. *Journal of Visual Impairment and Blindness*, 95, 389-402.

Miller, J. y Thompson, E.M. (2005). Prevocational services: A resource for enhancing a functional academic curriculum. *RE:view*, 37, 42-48.

Mioduser, D., Lahav, O. y Nachmias, R. (2000). Using computers to teach remedial spelling to a student with low vision: A case study. *Journal of Visual Impairment and Blindness*, 94, 15-25.

Mitchell, T.L. (2005). Exploring visual metacognition. *Applied Cognitive Psychology*, 19, 964-966.

Mushoriwa, T. (2001). A study of the attitudes of primary school teachers in harare towards the inclusion of blind children in regular classes. *British Journal of Special Education*, 28, 142-147.

Oakland, T., Banner, D. y Livingston, R. (2000). Temperament-based learning styles of visually impaired students. *Journal of Visual Impairment and Blindness*, 94, 26-33.

Oka, N. (2003). Educational reform in the Perkins Institution and Massachusetts Asylum for the Blind: Music education. *Japanese Journal of Special Education*, 40, 689-699.

Oka, N. y Nakamura, M. (2005). Criticisms of Full Inclusion in the United States by an Organization for People Who are Blind and Teachers of Students With Visual Disabilities. *Japanese Journal of Special Education*, 42, 547-558.

Oyinlade, A.O. y Gellhaus, M. (2005). Perceptions of effective leadership in schools for students with visual impairments: A national study. *Journal of Visual Impairment and Blindness*, 99, 261-475.

Pattillo, S.T., Heller, K.W. y Smith, M. (2004). The impact of a modified repeated-reading strategy paired with optical character recognition on the reading rates of students with visual impairments. *Journal of Visual Impairment and Blindness*, 98, 28-46.

Reed, M.J., Kraft, S.P. y Buncic, R. (2004). Parents' observations of the academic and nonacademic performance of children with strabismus. *Journal of Visual Impairment and Blindness*, 98, 276-288.

Roberts, A. (2001). Teaching transferable compensatory skills and processes to visually impaired adults. *Journal of Visual Impairment and Blindness*, 95, 234-237.

Rosenblum, L.P. y Amato, S. (2004). Preparation in and use of the Nemeth braille code for mathematics by teachers of students with visual impairments. *Journal of Visual Impairment and Blindness*, 98, 484-495.

Roth, P., Kamel, H., Petrucci, L. y Pun, T. (2002). A comparison of three nonvisual methods for presenting scientific graphs. *Journal of Visual Impairment and Blindness*, 96, 420-428.

Russello, S. y D'Allura, T. (2000). Career incentive awards for students with visual impairments: A follow-up. *Journal of Visual Impairment and Blindness*, 94, 231-234.

Sall, N. y Mar, H.H. (1999). In the community of a classroom: Inclusive education of a student with deaf-blindness. *Journal of Visual Impairment and Blindness*, 93, 197-210.

Schmeidler, E. y Kirchner, C. (2001). Adding audio description: Does it make a difference? *Journal of Visual Impairment and Blindness*, 95, 197-212.

Shapiro, D.R., Moffett, A., Lieberman, L. y Dummer, G.M. (2005). Perceived competence of children with visual impairments. *Journal of Visual Impairment and Blindness*, 99, 15-25.

Shimizu, Y., Shinohara, M. y Nagaoka, H. (2000). Recognition of tactile perceptions in a graphic display: Evaluation of presenting modes. *Journal of Visual Impairment and Blindness*, 94, 456-461.

Silberman, R.K., Ambrose-Zaken, G., Corn, A.L. y Trief, E. (2004). Profile of personnel preparation programs in visual impairments and their faculty: A status report. *Journal of Visual Impairment and Blindness*, 98, 741-756.

Smaligo, M.A. (1998). Resources for helping blind music students. *Music Educators Journal*, 85, 23-26.

Smith, A.J., Geruschat, D. y Huebner, K.M. (2004). Policy to practice: Teachers' and administrators' views on curricular access by students with low vision. *Journal of Visual Impairment and Blindness*, 98, 612-628.

Suvak, P.A. (2004). What do they really do? Activities of teachers of students with visual impairments. *RE:view: Rehabilitation Education for Blindness and Visual Impairment*, 36, 22-31.

Trief, E., Decker, L.M. y Ryan, D.J. (2004). Student satisfaction: A distance training model for training teachers of students with visual impairments in New York State. *Journal of Visual Impairment and Blindness*, 98, 367-372.

Trief, E. y Feeney, R. (2003). Guidelines for a precollege curriculum for students with blindness and visual impairments. *RE:view*, 35, 137-143.

Wall, R.S. y Corn, A.L. (2002). Production of textbooks and instructional materials in the United States. *Journal of Visual Impairment and Blindness*, 96, 212-222.

Wall, R. (2002). Teachers' exposure to people with visual impairments and the effect on attitudes toward inclusion. *RE:view*, 34, 111-119.

Windelborn, A.F. (1999). Doing Physics Blind. *Physics Teacher*, 37, 366-367.

Wolffe, K.E. (2001). Hadley School for the Blind: A pioneer in providing distance education. *Journal of Visual Impairment and Blindness*, 95, 576-580.

Wolffe, K.E., Sacks, S.Z., Corn, A.L., Erin, J.N., Huebner, K.M. y Lewis, S. (2002). Teachers of students with visual impairments: What are they teaching? *Journal of Visual Impairment and Blindness*, 96, 293-304.

Womble, M.D. y Walker, G.R. (2001). Teaching biology to the visually impaired: Accommodating students' special needs. *Journal of College Science Teaching*, 30, 394-396.