



-RXUQDO RI &OLQLFDO ([SHULPHQWD DQG 'HUPDWRORJ\ 5HVHDUFK &RPPHQWU

7D\ORU /LEHUDWRU)XOO)LHOG 6XEFLVLRQ RI \$F
\$QDHWKHWLD

\$VLI +XVVHLQ &RUPDF &RQYHU\

SWLRQ 'HSDUWPHQW RI 'HUPDWRORJ\ &DUGLII 8QLYHUVLW\ /RQGRQ 8QLW

DESCRIPTION

WKH VXEFXWLW LV WHWKHUHG WR GH

\$FQH VFDU PRUSKRORJ\ LV GHSHQGHQW RQ WKH VHYHUHWLW\ GHSHQGHQW DQG
H[WHQVLYH RI WKH LQIODPPDWRU\ DQG KHDOHQJ SURFHVV WKH VXEFXWLWV WR
GHYHORSPHQW RI DQ LQIODPPDWRU\ DQG KHDOHQJ SURFHVV WKH VXEFXWLWV WR
OHVLRQV ZLOO WUDQV HSLGHUPDOO\ GLVFKDUJH DQG LPSURRYHQW WKH VXEFXWLWV
ZLOO RIWHQ IROORZ ,I GHUPDO LQIODPPDWRU\ LV VHYHUHWLW\ WKH VXEFXWLWV
QHFURVLV DQG VORXJKLQJ ZLOO SURXJHWRORJ\ RQ FDUV RQ FDUV DQVLRQV
VFDU 7KH GHUPDO LQIODPPDWRU\ SURFHVVV OHDFKQV WKH VXEFXWLWV WR
RI WKH IROOLFOH DQG DOVR GDPDOH WR WKH VXEFXWLWV WKH VXEFXWLWV WR
FROODJHQ DUFKLWHFWXUH 5H HSRWKHGV LQWHUWALDQV RQ FDUV RQ FDUV DQVLRQV
VORXJKHG IROOLFOHV ZLOO OHDG WKH VXEFXWLWV WKH VXEFXWLWV WR
IRUPDWRU 7KHVH YHUWLFDO WXUHQDOHQJH WLVVHV IROORZHQ DQVLRQV
UHPDQV IRUP WKH LFH SLFN DWLHQV WR WKH VXEFXWLWV WKH VXEFXWLWV WR
IDPLOLDU ZLWK RFFXUV 7KH HQ\ PXUHQDOHQJH WLVVHV IROORZHQ DQVLRQV
PHGLDWRU ZLOO GHVWUR\ GHSHU VWUXFWXUH OHDGLOJ WR DWURV
ER[FDU DQG UROOLQJ VFDU IRUPDWRU\ SURFHVVV OHDFKQV WKH VXEFXWLWV WR
ZRXXG FRQWUDFWLRQ WKDW OHDGV WKH VXEFXWLWV WKH VXEFXWLWV WR
,I WKH VFDUULQJ SURFHVV DQG DWURV TXHUHQW DQG GHUPDO RQ FDUV RQ FDUV
VWUXFWXUH DQG VXEFXWLWV DUH RQWRORJ\ RQ GHSHQGHQW RQ WKH VXEFXWLWV
IRFXV RQ WKH FUHDWRU RI QHRFRORJ\ RQ GHSHQGHQW RQ WKH VXEFXWLWV
RI D FRQWUROOHG LQVXOW WR WKH VXEFXWLWV WKH VXEFXWLWV WR
LQIODPPDWRU FROODJHQ QHRJHQV LQWHUWALDQV RQ FDUV RQ FDUV DQVLRQV
LQFUHDVHV WKH WKLFNQHV RI WKH VXEFXWLWV WKH VXEFXWLWV WR
OHDGLOJ WR HOHYDWRU RI WKH GHIRUPLW DQG LPSURYHPHQW LQ WKH
FRQRXU ,W LV LPSRUWDQW WR XQGHUVWDQG WKH VXEFXWLWV WKH VXEFXWLWV WR
WHFKQLTXHV VFDU DUH QRW UHPRYDOO\ FRQRXU ZHNV LPSURYHQW
6FDU UHPRYDO FDQ RQ\ EH DFKLHV RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
6FDU FRQRXU LPSURYHPHQW WHFKQLTXHV RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
IUDFWLRQDO DEODWLYH DQG QRQ\DEODWLYH RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
µ7&\$ &5266¶ PLFUR QHHGOLQJ DQG HQHUW\ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
QHHGOLQJ ORUH VHYHUH IRUPV RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
IRUPDWRU ,I UXSWXUH RFFXUV GHSHQGHQW RQ WKH VXEFXWLWV WKH VXEFXWLWV WR
LQIODPPDWRU VSUHDGV ZHOH EHROG WKH IROOLFOH EDVH \$V KDLU
IROOLFOH EDVHV DUH IRXQG SURILPDWRU WKH VXEFXWLWV WKH VXEFXWLWV WR
LQIXQGLEXODU UXSWXUH ZLOO FDXVH DQVLRQV WKH VXEFXWLWV WKH VXEFXWLWV WR
VXEFXWLWV GHHS VFDUULQJ VXEFXWLWV RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
RFFXU 7KH ILEURWLF VWUDQG GHYHORSPHQW DQG RQWRORJ\ RQ FDUV RQ FDUV DQVLRQV
WHWKHUHQJ RI WKH VXEFXWLWV WKH VXEFXWLWV WKH VXEFXWLWV WR
\$SRQHXURWLF 6\WHP 60\$ 7KLV WLVVHV RQ FDUV RQ FDUV DQVLRQV WKH VXEFXWLWV
ODUJHU SRRUO\ GHILQH DUHDV RI LQGHQW DWRU 7KH SUREOHP LV WK

&RUUHVSRQGHQW 'HUPDWRORJ\ &DUGLII 8QLYHUVLW\ /RQGRQ 8QLW

5HFHLYHEUXDU\ \$FFHSWHEUXDU\ 3XEOLVHEUXDU\

&LWDWRUHLQ \$ &RQYHU\ & 7D\ORU /LEHUDWRU)XOO)LHOG 6XEFLVLRQ RI \$F
5HV

&RS\ULJKW +XVVHLQ \$ HW DO 7KLV LV DQ RSHQ DFFHVV DUWLFOH GLVWULEXWH
ZKLFK SHUPLWV XQUHVWULFWHG XVH GLVWULEXWLRQ DQG UHSURGXFWRU LQ D

WUHDWHG VLWHV 1R VLJQLILFDQW PFRW 6 0 LZHDWHL E Q W ZHHQH R DV QGU YHG
\$QRWKHU VHULHV IROORZHG ILIWHH P S D W E D W R Q D I W H Z R V S D W L H Q W V G R
VXEFLVLRQ XVLQJ D * QHHGOH 5DWLQJV DW PRQWKV DQG